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To Improve the Soil and the Mind.

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Notes in Steuben—II.

SOME TOLERABLY LARGE FIGURES—POTATOES, PLANTING AND CULTURE—STONE WALL AND HOW TO BUILD IT—CATTLE GRAZING AND FEEDING—TURNIP FIELD—HEALTHY FOOD—REMEDY FOR THE BLACK KNOT—BATH—GEN. O. F. MARSHALL S.

There are some further figures we may mention, in continuing our notes of the farming operations of Major DICKINSON, illustrating the scale on which they are transacted. He employs 20 horses, breeding enough for his own supply and sometimes to afford a surplus for sale,—and 20 yoke of oxen, not working the latter very hard, but fattening them by degrees for market, and keeping up the number by the purchase of poorer ones. He has about *fifteen miles* of stone wall, so constructed as never to tumble down. He is just now grazing comparatively little stock. His usual complement of cattle we believe is four or five hundred head, of which a hundred perhaps may be yearlings. He has sheared the fleeces of as many as 11,300 sheep in a single year, and his flocks aggregate annually from that number all the way down to one or two thousand—the number on hand at the time of our visit, being but 1,300. He has cut a crop of *two thousand tons* of hay; and we should think might reach that amount if he does not exceed it this year. His sales this spring were from eight to nine hundred tons, at \$10, to his neighbors, who drew it from the stacks for themselves, and from \$15 to \$20 for what was baled and sent to market. He has had also a crop of seven thousand bushels of potatoes to dispose of, and this spring he sold 500 to one man to go to Chicago, and 500 to Cincinnati or that vicinity. Two years ago he sold 4,000 bushels to a single house in New-York for \$4,000. He cut up for planting this spring fifteen hundred bushels—intending to plant a hundred acres, but he was disappointed in one field of nearly fifty, pasture land just broken up, the spring being too wet to permit necessary cultivation. He uses three mowing machines—Burrall's, Manny's with Wood's improvement, and Ketchum's. On his farms are no less than thirty barns.

Of *Potatoes* four hundred bushels per acre used to be expected as Major D.'s crop in the days before the rot; since then he has thought an annual average of two hundred a good one. He cuts the potatoes for planting, and rolls in tar and plaster, as already described

with wheat and other seed. The plaster is not only of manurial benefit, but the tar he thinks in some measure at least preventive of rot, protecting the tuber from moisture that would otherwise cause its decay. He plows furrows in which to plant the potatoes from three to three and one-half feet apart. And, by the way, a *straight* furrow is the Major's particular pride in farming—aside from its neater and more workman-like appearance, it brings the essential advantage, in cultivating by horses, that there is no danger of interfering with the plants—each is just where it ought to be. It is astonishing how few men can plow a straight furrow, which in our friend's vocabulary signifies one on which if a line were snapped, it would touch its centre at every point.

In these furrows the potatoes are dropped, say, a piece with a couple of eyes every twelve inches. The manure from the cattle yards is thrown over them in the furrow, together with salt, the last at the rate of three or four bushels per acre, and when the straw is dry, often made into a brine and poured over it. The covering of earth is then plowed over the whole, and the labor of planting is concluded. Besides the manure in the furrows, we think the fields have had one dressing previously plowed in; but are uncertain whether the practice of Major D. is to apply it in both ways the same year or not. When the potatoes appear, and as often subsequently as very dry weather may render necessary, he cultivates by horses. And when the weather is unusually dry, or, on the other hand, if it is so wet as to make the soil too hard and compact, he runs the subsoil plow between the rows, having three horses, and thus clearing the hills,—which operation loosens up the ground underneath, opening new stores of moisture to the roots, or, as the case may be, merely permitting their extension and promoting the expansion of the tubers. For seed Major D. plants as late as the first of August. We believe the only kind he grows, is that known as the "Bermuda."

Stone wall is an essential in farm-economy, in the provision of which our friend manifests his customary degree of care and thought. His mode of building it is to raise a ridge of earth to the height of a foot or two, which height is of course comparatively doubled by the depth of the ditches on either side from which the earth is

taken. These last make good drains in all respects—they are a drain for the road on one side, assisting materially in keeping it in order—they are a two-fold drain for the field on the other, for they cut off the moisture from the road if it chances to be on higher land, and they aid in carrying off its own moisture as well as any other open drain would do. Their depth is increased after the wall is built, by plowing the earth up against it, so as to form a sloping bank from their bottoms up to about a foot above its base. And in the third place, they *drain the wall*—it rests on a foundation always dry, and where there is no water there is no frost. Animals, moreover, which approach the wall far enough to get their fore feet into the ditch cannot see over it, and it must be a very hard pressed and ill-tamed brute who would neglect the proverb to “look before leaping.” Thus we find Major D.’s walls protected from the heavings of the ground below, and from animal assault above. The stone is laid neatly and compactly in horizontal layers as usual—especial care, however, being taken to make each separate piece *bind* well with its neighbors, in which consists the great “knack” in making a substantial structure. The last horizontal layer is made to afford a smooth, straight and even surface, and then the wall is completed by a course of more rough and jagged stones placed edgewise and some degrees from the perpendicular, the object being mainly to keep off the sheep, which will climb and walk upon a smooth top.

In no other one thing can a farmer perhaps obtain more serviceable hints than from Major D.’s construction of stone wall as above described. In not a single instance, we believe, have his walls thus built, ever fallen, with the exception of one or two places, where openings left under them for the passage of water proved too small in time of heavy storms, and sudden floods consequently carried off the superstructure. To contrast his neat, tidy and permanent looking fences of this kind, with the tumble-down affairs most often seen, is to place good and bad farm-economy side-by-side in a forcible light. Major D.’s walls are not of much greater cost either—he builds them indeed at about a dollar and a quarter per rod. They are all regular and handsome, although partition walls between fields are not laid up with quite the care shown in those along the roads to make a smooth outer face. But uniform attention is paid to all that can promote their utility and permanence.

In *Feeding Cattle*, Major D.’s practice is to purchase at any age from one to two or three years as opportunity may offer, at prices admitting of profitable investment. He feeds until they are in condition for sale, and sells from time to time as they reach this condition, at any season of the year—being especially awake to the state of matters at the New-York market, and most often having a lot ready when prices indicate that an addition to the supply might be sent down over the Erie road, in time to relieve the necessities of the city at a cent or two a pound more than it ordinarily pays for the performance of this charitable duty. His main purchases are made in Ohio or Kentucky; and he generally gathers in about a hundred yearlings, at low rates from his own vicinity. In summer they have the best of pasturage—we visited one field, in which there were grazing eighty or a hundred head, where the grass if standing up would have reached their bellies, and when they lay down on it, was pressed into a luxurious mass, several inches in thickness, of compact and velvety bedding. On such grass Major D. intimates his opinion that cattle must grow fat, and will be very happy to make a comparative trial if any body thinks he can provide them with grain or other food capable of laying on the flesh better or faster. About a bullock to an acre and a half would be no more than he might easily graze, but he does not care to average closer feeding than two acres per head. About the middle of October, or when the frosts begin to take the sweetness out of the grass, he draws turnips

to the pastures, tops and all—as many as the stock can eat. With these and the grass, they do well for four to six weeks longer, when, say from the middle of November to first of December, they are yarded, and, at night, shut up in stalls similar in construction to those used by JOHN JOHNSTON, of which we have already given description and figures. They have all the hay and turnips they will consume, and about a peck of grain apiece to those which must be brought into condition for early sale—two quarts for those which are to go to grass again in spring. In the yards they have an abundance of straw, of which they eat as they will; the sheep have access to the rest, and what is left goes into the manure.

This manure Major D. takes direct from the yards to the fields in spring as it is wanted, thus having to handle it but once. A portion is plowed in on corn or potato or other root fields—the remainder spread as a top dressing for the grass, &c.

We went into a field which after laying in pasture since it was cleared, had been plowed up to level the knolls and secure an even surface for re-seeding. Excepting an annual application of plaster, it had never been manured, save by the animals as they grazed. The sod upon it was most remarkable, ranging from four to nine inches in thickness of closely matted roots, and furnishing by decay a quantity of manure, the fertilizing value of which is scarcely to be computed. Hands were then at work picking stone from this field, and two harrows dragging it, which latter operation had to be repeated again and again before it was smooth enough to sow. Major D. was putting it in turnips—after the seed was sown giving it a thorough rolling. He sows the Norfolk and Aberdeen varieties, preferring them to ruta-bagas. He generally raises also large quantities of carrots, of which he has found one bushel worth two or three of turnips for fattening purposes. After digging these roots in the fall, they are heaped and covered with straw until the weather becomes very severe, when what have not been fed out are stored in barn cellars.

A mixture, of which Major D. has planted quite a little patch, is as follows: half a bushel of buckwheat, to two bushels of oats and a peck of barley per acre. The grain threshed out and ground is excellent for feeding, especially mixed with boiled carrots.

The Major mentions that since he has farmed, his house has never been without good pork, potatoes, or apples. In their season he raises an abundance of garden vegetables, peas and beets, &c., &c. He has employed from 25 to 50 men through the summer for many years, and by providing healthy food, well prepared, in ample quantities, never has any of them give out from sickness. With pork in all its varieties, ham, bacon, &c., boiled and fried, his table is well supplied, and he thinks them far more healthy than fresh meats for men engaged in field work.

Mentioning apples reminds us of other fruits, of different kinds, of which our friend has a vast number of trees in bearing. The treatment he has employed to keep them free from insects, has also proved serviceable as a remedy for the black knobs or knots which grow upon the plum. By putting soft soap in the crotches of the main branches, and washing the tree with lye, together with the application of ashes at the roots, Major D. keeps them away from his trees, and he thinks he can grow them off from trees already severely affected—at least he is trying the experiment, and has already found it in some measure a successful one. This may be found a hint of value to our horticultural readers.

Leaving Major Dickinson, of whose experience and practice the foregoing remarks give but a very hasty and imperfect sketch, before concluding, we must add a note or two of our stop at Bath. Here we were kindly met by our friend, Mr. GEORGE EDWARDS, in whose company we enjoyed several pleasant calls upon other subscribers, among whom were Messrs. WM. HAMILTON,

JOHN RICHARDSON, C. A. SMITH, ROBERT B. WILKES, HENRY McELWEE, the Messrs. ROBIN, and Mr. JAMES LYON, for whose politeness we have already mentioned our indebtedness. These gentlemen are all of them among the most thriving, active and enterprising farmers of that section, and would do no discredit to any other in the State. Mr. Edwards himself has a very nice place of a hundred and twenty acres bordering upon a beautiful little sheet of water, and especially noticeable for the simple, convenient and economical manner in which it is laid out. Mr. Lyon includes in his farm some of the best of the valley-lands of the Conhocton. Mr. Wilkes we found hard at work reaping in the field—having one of Allen's machines, on which he has expended much labor and money, until he has rendered it a most serviceable instrument. The soil of this region is well adapted to general farming purposes, that of the intervals producing fair crops of a wide variety of products, and the lands back upon the hills, which are less productive of grain, being good for wool-growing and grazing purposes.

At Gen. O. F. MARSHALL'S, whither we drove after an early dinner, at a distance of about seven miles, we had a pleasant time in looking over the farm and stock. As our readers are aware, Gen. M.'s hobby is sheep, of which he has long been engaged in breeding Spanish Merinos. We saw several fine rams—among them a two year old whose fleece sheared this spring at just a year's growth, weighed 17½ lbs., and a yearling which sheared 13½. He has a large flock and gives them a great deal of attention. In one other of his farming operations we took considerable interest from its comparative novelty. He has a fine maple sugar orchard from which, with the exception of one single year, he has always derived his whole supply of sweets—having sometimes made as much as 2,000 pounds. This year his crop was about 800 lbs. His apparatus for making it is very convenient and complete.

Topping and Harvesting Corn.

There is much difference of opinion and practice among farmers in the management of their corn crops. Some always practice cutting the stalks soon after the kernels have become glazed or checked, believing that such a course hastens the ripening of the corn; and the removal of the stalks greatly facilitates the process of harvesting, and that green cut, well cured cornstalks are much more valuable as winter forage for cattle, than the same would be if left uncut till the corn was fully ripened, as is the practice of some. We presume this is a correct idea. But experiments made some years since, by the Hon. W. Clark of Massachusetts, seem to prove that the number of bushels of corn per acre was very much lessened where the stalks were cut, compared with portions of the field where the corn was not topped, but all left till the corn was fully ripened. By his experiment, the loss in grain must have been much greater than the increased value of the green cut stalks over the perfectly ripened fodder. But a difference of ten or twelve days time in cutting the stalks might make a material difference in the value of the grain. We think it the safest way for those farmers that practice "topping" their corn, to cut their stalks quite late, rather than a few days too soon.

Well cured corn fodder is a valuable winter feed for farm stock, and much care should be exercised in saving it in the best possible condition. Many farmers are quite too negligent in this matter. We have seen the stalks cut quite green, and many days too soon, bound in large bundles and put up in large shocks, where it remained during all weathers for weeks, or till the corn was harvested; heavy winds blew over many of the shocks, and drenching rains thoroughly wetted them,

thus nearly ruining them as fodder. We have seen others cart them directly from the field as soon as bound in bundles, where from want of room and care a large portion of them became mouldy, and nearly rotten and worthless. We know some careful farmers that pursue quite a different course. They do not top their corn until most of the tops of the spindles are dead, and many of the husks have lost their green color. They cut their stalks in fair weather, bind them in small bundles, cart them to the barns, and place the bundles *astride* of poles extending from beam to beam across the barn floor. Here they dry without heating or growing moldy. If they have not room enough over the barn floor, they make use of hovels or sheds, in curing them. Those that practice this method think they are fully compensated for all extra labor, in the enhanced value of the fodder.

Many farmers prefer letting the crop stand till the grains are principally glazed, and then cutting all near the surface of the ground, and shocking in the field, letting it remain there till dry enough for husking. Some contend the corn ripens as well as if left upon the separate hills. The fodder, as a whole, is thought to be worth much more cured by this method, than by any other process. The crop, when thus cut up and shocked, is placed beyond injury from frost—a matter of much consequence some years. There is but little if any thing gained by cutting and shocking corn after it has been stricken by frost. In cutting up the corn as soon as fairly glazed, the fields can be cleared in season for sowing winter wheat or rye—sometimes a matter of much consequence.

Some contend the soundest and heaviest corn can only be grown by letting "nature take its course," that is, let the whole plant remain uncut till the corn is "dead ripe." This course, probably, may insure the greatest weight of corn per acre, if the autumn is favorable to its perfect maturing. We have more than once pursued this course, but found the labor of harvesting much greater, and thought the fodder less valuable.

Seasons vary so much, and the circumstances of farmers differ so greatly, (to say nothing of their prejudices,) that it would be idle for any one to attempt to point out *the* one best way—or rather, to say there was but *one* best way under all circumstances.

From present appearances, and the best information within our reach, we think it may be pretty safely predicted, that over a wide range of our country, this is not destined to be a great corn year. A large part of the growing corn is too late to fully mature, unless we have an unusually warm September and October, a circumstance hardly to be expected. Therefore it will probably be the safer course for most farmers to cut up and shock their corn as soon as it will any way answer,—that is, if it can be done before receiving much injury from frost; by so doing they may save much in the value of fodder, and much corn would ripen in the shock that would be nearly ruined by frost. We have several times seen corn cut up, and tied in moderately sized bundles and slung across poles over the barn floor, where it has dried perfectly, and the fodder was much better than it would have been had it been shocked in the field. We have seen various methods of shocking corn in the field. Some put a dozen large bundles into a shock; such large stacks do not dry well. Others cut and stand it round a hill purposely left uncut. We have seen corn very safely stooked by only using five bundles to the stook—one in the centre, and one on each of the four sides; a band of rye straw was tightly tied around the whole some four feet from the ground, and the tops of the stalks bent over and tied down. Such stooks stand better than larger ones, and also dry much better.

Corn, when harvested before it is properly ripened, and dried in the field, as much of it probably will be the coming harvest, is sometimes injured when stored in large quantities in the crib, or the slatted corn

house. If dry, windy weather follows after the corn has been cribbed or housed, it generally dries well, but if long continued damp or rainy weather succeeds, the corn is very liable to heat and mold, &c., injuring its meal qualities. To guard against such a loss, we have known farmers to have a tight box stove in their corn houses, and they kept up a brisk fire a portion of the time during the damp weather, thereby drying their corn very fast, and saving it from injury.

The labor of manuring, plowing, planting and hoeing an acre of corn, is no trifling job in many situations of the country, and it should be the aim of the farmer to make the most of this labor, and not cheat himself out of a portion of his work by suffering his corn or corn fodder to be injured or wasted through negligence or lack of care on his part.

Lightning Rods.

MESSRS. EDITORS—In answer to my inquiries with regard to lightning rods, you refer me to the Register of 1855. I have examined those directions, and I am not yet fully satisfied. Does the writer know from test, that an iron rod will be a durable and efficient conductor? Will not rust impair, and in time entirely destroy its conducting power? I also wish to know how the wooden supports are made, and how they can be used in fastening the rods to the chimney.

J. D. Browne, in the Patent Office Report of 1854, gives directions for erecting rods. He says iron will not do unless coated with some other metal, and he says that the size of an iron rod should be five or six times that of copper, and copper should be from one-half to three-fourths of an inch in diameter; that the rod should present but one point to the clouds, and that should be tipped with palladium; and that it may be fastened to the buildings with iron staples, but without the glass insulators. To erect a rod after his directions would be rather expensive, and if the rod described in the Register is just as good and durable a conductor, I for one should be glad to know it. The rods put up all through this section, are half inch iron, fastened to the building with iron supports, insulated with glass. I wish to have a rod, and have it put up in such a manner that it will be a sure and durable protector; but I am not able to have such a rod as that described by Browne; but if such a rod as that described in the Register, after standing for years has been tested by the lightning, and proved itself a good conductor, after learning how the wooden supports are made and how fastened to the chimney and roof without injuring the latter, I shall not be long without one. W. E. HUNTLEY. *Westford, July, 1857.*

The science of Electricity is but imperfectly understood by those who generally write upon it, and there is often a great deal of nonsense mixed up with truth in the directions for erecting lightning rods. We can only repeat the instructions from the Register, with a few reasons added.

Copper is a better conductor than iron, but it is many times more costly, while iron possesses a very important advantage, namely, greater *stiffness* for security against wind, and this stiffness is increased many times, at a given cost, by its greater size. Iron is therefore the metal to be always used. Rust is nearly a non-conductor, but a small coating of rust on the outside will not impair the efficacy of a rod, while the great mass of it remains pure metal, any more than a coat of paint. This we know by experience. Half an inch in diameter is rather small, but will do; five-eighths or three-fourths is better. A larger size has two advantages—it is stiffer, and more secure from blowing down; and it admits of a more free discharge of the

fluid, with less danger of flying off to other conductors, or to the building. Such a rod would remain hundreds of years on a building, without becoming materially rusted, or so as to injure it, except it be the portion below the surface of the earth. This might be converted to rust in a long series of years, and would in that case need renewing, or still better, this part may be made of a few copper straps, spread in different directions to dissipate the fluid. Copper will not become converted to rust, like iron, when exposed to water or moist earth for ages.

We have known an iron rod, three-fourths of an inch in diameter, with a single point, to carry off an electric explosion so loud and terrific that the heaviest cannon would be a mere pop-gun to it, without any injury to the building. It was wholly iron, with a silver point; had been erected many years; and penetrated into the earth six feet, where a bushel of charcoal had been scattered. The single point was not sufficient to bring off all the fluid properly, and it was consequently melted into a ball the size of a rifle bullet by the lightning. Several points, by dividing the discharge, would probably have lessened the danger and intensity of the explosion, and not been melted or injured. There is no particular advantage in a palladium point over iron or copper. Iron points, ground sharp like a needle, and polished, will remain sharp for ages, for no water can remain on them, and they will never become materially rusted—however, if our correspondent has any fears on this point, he may tip them with copper.

Wooden supports are far better than any thing else, for several reasons. They are cheaper, more easily secured, will not direct the fluid into the building, as iron, and may be made longer so as to keep the rod

further off from the building. The upper support on a chimney may be a light square wooden frame, *a*, fig. 1, nailed together, and accurately fitting the chimney outside one of the rods forming the frame projecting a foot, through which a hole is bored to receive the rod. A carpenter will make such a frame in half an hour. At the foot of the chimney, a piece of plank with a hole through the upper edge, as shown by Fig 2, is nailed



Fig. 1. on the roof, so as Fig. 2.

to keep the rod about six inches from it. One or more like this may be placed between the chimney and eaves, to keep the rod above the roof. At the eaves, a very simple fastening is made, consisting merely of a piece of board, with a hole through the outer end, nailed on the roof, or still better beneath the eaves, and projecting a few inches. Should any support at the side of the building be required, it may be made as shown in Fig. 3.



Fig. 3. inches. Should any support at the side of the building be required, it may be made as shown in Fig. 3.

Any blacksmith can make the rod, by simply welding rods together, when it may be easily dragged home behind a wagon; and a carpenter, or even any common farmer of ordinary ingenuity, will make the supports. If the upper end has several points, the lower end of the rod should be first passed through the supports before they are fastened to the building.

STEAM PLOW.—A correspondent informs us that a steam plowing machine has been invented, and is now being built at Dayton, O., which it is thought will answer the expectations of the public.

Fruits for Severe Climates.

Major M. R. PATRICK of Sackett's Harbor, formerly so well known in military life, is now still more famed for his influence and successful labors in the advancement of those great arts of peace, Agriculture and Horticulture—so that it may be said of him, at least in part, as Pope wrote of Lord Peterborough,

Even he whose lightnings pierced the Iberian lines,
Now forms my quinceunx, and now ranks my vines.

He has recently stated to us some interesting and very valuable facts, in relation to the hardiness of our principal varieties of fruit, on which he has made many observations in the locality of his residence,—a locality remarkable for its severity in winter, both from intense cold, and from sweeping winds. The recent unprecedented sharp winters at such a place, furnish a very decided test of the hardiness of any sort; and whatever has endured these winters untouched, may be set down as clearly and distinctly hardy, for nearly all localities.

Out of a large list of apples, the following have proved through successive winters uninjured, and being at the same time vigorous growers, are pronounced as "best" for these two qualities:—

Hawthorndean,	Late Strawberry
Sops of Wine,	Jewett's Red,
	Orne's Early.

The next list embraces those which are designated as "good" or "fair," in these particulars:—

Early Harvest,	Am. Gold. Russet, (very g'd)
Summer Queen,	Swaar, (very good,)
Fall Orange, (very good,)	Benoni, (very good,)
Hawley,	Red Astrachan.
King,	Ribston Pippin.

Of the following, a part have proved valuable for the preceding qualities, and a part have been injured:—

Rambo,	Fameuse,
Dyer,	Gravenstein.

The foregoing are usually strong growers, and have resisted the effects of the winter and spring, and may therefore be recommended with some degree of confidence for cold localities and severe exposures.

The following have been found but *half hardy*: Jonathan, Domine, Sawyer Sweet, Sweet Baldwin, Danvers Sweet, Belmont, Canadian Reinette, Yellow Bellflower, Spice Sweet, and *sometimes* the Dyer, Gravenstein, Fameuse, Hawley.

The following have been most injured by winter:—Baldwin, Twenty Ounce, Tallman Sweet, Scalloped Gilliflower, Fall Pippin, Sweet Bough, Summer Rose, Early Strawberry, Early Joe, Jersey Sweet, Duchess of Oldenburgh, English Summer Pearmain, Roxbury Russet, (very poor,) Westfield Seeknought, Ladies' Sweet, Esopus Spitzenburgh, Porter, Lowell, Rambo sometimes, Belmont sometimes, Lady Apple, Newtown Pippin, English Russet, Northern Spy mostly, Red Canada, Rhode Island Greening, Peck's Pleasant, and occasionally the Swaar.

THE SOIL AND EXPOSURE.—"These trees," observes Maj. Patrick, "are in a sandy soil that freezes deep, and does not hold water; though not thorough drained, is crossed frequently by deep open drains. It lies on a plateau nearly level, swept by winds from a westerly or north-westerly direction, that come down the lake through its entire length. The soil is not made rich, but kept well tilled, and the wood of the trees well ripened, protected from these westerly winds by a dense screen of Silver Maple and Mountain Ash.

RESULTS ON DWARF PEARS IN THIS LOCALITY.

I have 100 dwarf pears received from yourself; this is their fourth summer. Louise Bonne de Jersey does

well, and gave magnificent specimens of fruit last season. Duchess d'Angouleme showed a few specimens last year, very poor and worthless; Virgalieu showed a very few last year, and 2 or 3 this, cracked and worthless. The Tyson is a strong, hardy, luxuriant grower, but has not fruited; the Vicar of Winkfield has not fruited, and does not grow so well or appear as hardy as the L. B. de Jersey, which is a fair and healthy grower. The Duchess kills back badly every winter; its old wood is diseased, and of course it will be worthless, though it sends forth a strong growth of summer shoots. The Virgalieu trees, with the same treatment as the others, will not grow nor make any new wood. All but one or two are in a dying state.

STANDARD PEARS, AND MODE OF TRAINING.

Of standards, I have lost all, or nearly all, except those of two summers (and on their third) growth. These I am training rather as bushes than trees, and they are doing well. I have not a list of the varieties. Observation causes me to believe that in the exposed position of my trees, I must adopt that method of training all my fruit trees. Such of my apples as are thus trained being healthy, while the others have become diseased.

EFFECT OF THE WINTER AND EXPOSURE ON CHERRIES.

I received from you scions of cherries two years ago, which I worked on the Mazzard, at standard height, supposing the stock to be more hardy than the scion. They grew well, were stopped back and ripened their wood, but with the exception of the Cleveland, Bigarreau, White Herefordshire, and Napoleon Bigarreau, nearly all out of five hundred were killed, even the Mazzard body, last winter. These trees were sheltered by the screen near the pears, while about 50 of two years longer growth, standing wholly exposed to the wind, lost only about half their number. They were Black Tartarian, Yellow Spanish and Elton. From you I received scions of Gov. Wood, Rockport, Burr's Seedling and Great Bigarreau, which have all been killed; while Cleveland, Napoleon, Downer, Holland, Florence, Downton, and Black Eagle, have escaped."

We regard these facts, furnished by our friend Patrick, as of great value, and especially so to those planting orchards in cold regions, enabling all such to save themselves from severe disappointment and heavy losses by making a proper selection.

By referring to similar lists from our western correspondents, we perceive nearly the same results, but with some exceptions, for if results vary in the same orchard and nursery, as the preceding lists indicate, there must be some variation in different regions of country. But those sorts which are found to escape in all the different circumstances, and which stand at the head of the lists furnished by all reports, will of course be regarded as perfectly reliable.

CAHOON'S SEEDLING PIE PLANT.—We have received from B. P. CAHOON of Kenosha, Wis., a box containing fourteen stalks from the variety of Rhubarb originated by him, which are fully equal in size and flavor to those noticed by us last year. One or two of them had the leaf still attached, the main ribs on the back of which are nearly as large as ordinary stalks. When we add that each stalk of several of the smaller ones tried by us, would make three good sized pies, the fact will perhaps go as far as their dimensions in feet and inches. Mr. C. very justly remarks in the accompanying letter: "The article is now rather out of date in your market, but here in the west where we have but little fruit, it is highly prized, and above all other varieties, for the roots send up new leaf stalks till November. It is as fresh and green in October as in May, when grown on moist land and on roots of one and two years old."

Overhanging Fruit Trees.

Notwithstanding all the "counter opinions of lawyers" on this subject, I think we would often be better off, if instead of consulting them on every difficulty, we would infuse into our opinions and conclusions, the plain, clear, and immutable principles of justice and common sense.

A. and B. each buy from C. a piece of land, and his deed to each, as usual, confirms to him, his heirs and assigns forever, the peaceable and exclusive right and possession of every part and parcel thereof, and of every thing thereunto in any wise appertaining or belonging, and for his only use and benefit.

B., without obtaining the consent of A., planted a row of fruit trees all along and near to A.'s line, who cultivates his land up to the line in ordinary vegetables.

In course of time B.'s apple, cherry and other trees became so large and overhanging, that under them, and for a considerable distance from the line, A. could not raise any crops to remunerate him for his manure and his labor, and he very naturally came to the conclusion that their roots underran his line in as great a proportion as the tops overhang it, and consequently he was entitled to so much of the products as grew overhanging, in justice to himself, for he lost all the use of his ground. Besides as he was not consulted and his consent obtained for the planting, he refused to let B. enter upon or over his land, so that B. could not reach over to pluck nor pick up any of said overhanging fruit, A. alledging his clear title to the sole occupancy and enjoyment of all his land, and every thing thereto in in any wise appertaining.

Now, does any one, (not a lawyer,) undertake to say A. had not both the legal and moral right so to say and do in self-defence, if he so chose? Besides, why did not B. plant his trees so far off A.'s line as not to overhang it at maturity, and then have cultivated the land near the line in such manner as would not prove eventually a nuisance to A., unless it was to obtain more room, and consequently at A.'s cost?

Again—A. now decided to erect a large edifice upon his lot, and adjoining to B.'s line. Does any one doubt his right to do so, and to dig along the line as deep as his necessities require, and to build as high in the air as he wishes to, provided in doing so he does not intrude upon B, nor do him damage on or over his premises, present or prospective? Of course he must cut off all overhanging branches with their fruit, and need not ask B.'s permission either; but not to enter on B.'s land against his consent.

Also—A. wants the light and sunshine along his line back of his house, still heavily overhung by a great apple tree, the overhanging fruit of which would be no adequate compensation. Of course his right to clear it off cannot be denied—nor, while remaining, can his full right to all its products be denied? W. N.

N. B.—We all know special agreements between parties makes the law in these cases.

Remedy for Unfruitful Trees.

Can a fruit tree be made to blossom, at the proper season, and develop its character? In rear of my residence stands a seedling Peach tree, or rather a Peach bush—for at the surface of the ground the trunk diverges into three or four stout limbs—which is growing vigorously, and apparently is very healthy, is at least six, if not seven years old, but has never shown a single bud or blossom. The soil is coarse gravel with a very small admixture of loam. Can anything be done with it save cutting it down? O. W. Norwich, Ct.

Checking the growth by cutting off below the ground

some of the principal roots, or by allowing the ground to become hard and covered with grass, tends to promote the formation of fruit buds. There are some of our best varieties of the peach, (the Early Crawford, for example,) that will form fruit buds before seven years old under any circumstances—and a tree which will not, as the above, may perhaps be of little value. Too bushy or dense a growth tends to retard fruiting.

Bees.

Your correspondent, R. H. B., of Burnsville, Illinois, asks "if there is any good work published on the culture of bees," and you refer him to three of the best American works. At the same time a wish is expressed that "Apis" would be a little more explicit in regard to his mode of treating bees.

As the season is over now, so far as the collecting of honey is concerned, (except in regions where buckwheat is extensively cultivated,) and the bees are domiciled until next spring, I propose in future numbers of this paper to invite inquiry upon the subject of bee keeping, at the same time advancing my own views. As I have no "patent" to present—no pecuniary interest at stake, but simply the desire to awaken an inquiry upon the subject, I hope at the outset to disarm prejudice, and at the same time ask impartial criticism. To begin at the beginning, I send annexed, an article on the apiary itself: "*The best situation for Hives and the comparative advantages of Hives in the open air, over an enclosed Bee house.*"* In future numbers I propose to discuss the relative merits of different hives, and the best management, &c. I have about forty different works on bees, and for those who wish to read upon the subject, I would recommend the following authors:

1. *Beran* gives the best natural history of the bee, and as a literary work is unsurpassed. It is also practical and very truthful.

2. *Langstroth's* book is undoubtedly the most original and scientific American work ever written. For those who would make bee keeping a study, it is an invaluable work. His hive is the only one which will give the naturalist an insight into their internal economy.

3. For the farmer, who has not the time or patience to give to the above work, (for it requires study) I would recommend *Quinby's* book. It is simply an improvement upon the old fashioned way, and for the generality of farmers, who care not to go beyond the acquisition of a few boxes of honey at the end of the season, it is perhaps the best book. I do not mean of course, to cast any reflections upon many other excellent authors, at the same time, to any one who has read most of the bee books issued in this country, it is apparent that they are but compilations from the old English and Scotch masters. I should have mentioned "Huber," the "Prince of Apiarians," but his book is too rare. Huish's book is a vindictive assault upon the various theories of Huber, and every day only serves to prove more and more of his errors. For the children, the "Sunday School Union" has issued a capital little book called the "Wonders of the Hive." The best essay on the subject, is one reprinted from the "Quarterly Review," among a series called "Murray's Reading for the Rail." APIS. Whitmarsh, Penn.

WATER RAMS.—Some time ago some one asked in your paper as to water rams. After twelve years experience, tell him from me, that they are a nuisance—the wheel is better, but not much; a good pump is worth a million of the two. A. L. E. Philadelphia.

* The article referred to, was by mistake, published in our last number.

Riversdale,

SEAT OF CHAS. B. CALVERT, ESQ., PRINCE GEORGE'S CO., MD.

Shortly after leaving the Beltsville Station, the traveller by rail from Baltimore to Washington, perceives a sudden acceleration in the speed of the train, and looking out to ascertain the cause, finds that the skillful engineer is taking advantage of a remarkably long and level tangent to urge his iron steed "to show its mettle" (no pun intended.) This tangent, for more than two miles of its course, and though it terminates in the bold curve that sweeps up to the Bladensburg station, passes through the centre of *Riversdale*, one of the finest estates in Maryland, and the property of CHARLES B. CALVERT, Esq., late President of the Maryland State Agricultural Society.

Following the curve of the railroad northwardly from the Bladensburg station, and crossing the old Baltimore and Washington turnpike, a few steps conducted your correspondent, a few days since, within the boundaries of this extensive and highly cultivated demesne, and a very short walk in addition brought him, accompanied by the owner, under the roof of one of the most hospitable mansions of the most hospitable county of Prince George. After a few moments rest, taking the license of a relative and friend, I cut short an incipient agricultural discussion between my host and another, by a proposal to visit the pleasure grounds, green-houses, and other improvements made since, as a child, many years previously, I had visited this charming spot.

THE GROUNDS AND HOT-HOUSES—VERBENAS—LAKE AND FOUNTAIN.

From the large saloon in the centre of the house, through lofty arched windows opening from the floor, we passed out upon the tessellated marble pavement of the southern portico, and thence between the stone columns, descending a short flight of steps, we found ourselves upon a smoothly gravelled walk that ran in gentle curves on either hand past arbors covered with climbing plants, until its level meanders were lost in the shrubbery. Immediately before us was a broad parterre, on which, from the smoothly shorn grass, rose several masses of artificial rock-work, partially covered and thickly interspersed with a profusion of verbenas, petunias, portulacaeas, and other plants. To the summit of the central mass a small tube was conducted, and, concealed amid the flowers, was compelled to send up at pleasure, its cool and refreshing jets of feathery spray. From the parterre descended three terraces, each about 150 feet long, and laid off in serpentine forms. At the foot of each were beds of flowers. On the left a flight of rustic stone steps led to the grapery, and on the right a similar descent conducted to the hot-house. The grapery is heated by hot water, and is built in the form of an L, with curvilinear roof of glass; the main building being 100 feet long by 20 feet wide, and 22 feet high, and the wing being 50 feet long, and otherwise of the same dimensions as the main building. I noticed among the grapes in cultivation, the Muscat of Alexandria, Black Hamburg, Frontignan, Chasselas of Fontainblau, and Pope's Black Hamburg. This grapery is to be very considerably enlarged, and Mr. Calvert thinks he can cultivate the grape in this way, not only as a luxury, but as a source of profit.

Passing from the grapery to the hot-house, we found this building to be 80 feet long, and containing a large number of plants in course of propagation by Mr. Calvert's industrious gardener. In front of this structure were planted the handsomest bed of verbenas in this part of the country. All the finest varieties had been obtained from Mr. Dexter Snow of Chicopee, Mass., who, as the readers of the Co. Gent. are well aware,

cultivates this plant as a specialty, and is known as the "Verbena man." The variety and brilliancy of these verbenas would astonish any one not acquainted with the perfection to which modern floriculture has been brought. Mr. Calvert has raised a new seedling portulacaea, which I saw growing near these verbenas. It is one of the most beautiful and curious of its species. Its color is a most delicate peach blossom, with light cherry colored stripes. Just below the terraces already mentioned, with a small interval of 200 feet of lawn, lies a pretty little lake of a circular form, and containing a small island united to the main land by a light arched bridge of lattice work. Upon this island is a Chinese pagoda, resting upon a petal base of rock work, in which grow a profusion of petunias of every hue and shade. To this little mere we next wended our way along a slightly descending path, and after trying my skill as an oarsman in one of the skiffs moored to the little wharf erected for the convenience of the boys of the family, proceeded to examine the source for supplying, and the means of elevating the water for the fountains and the uses of the household. The water is raised to the top of a tower adjoining the house, at present by horse power, but it is intended to substitute wind power. The tank when filled contains 10,000 gallons.

ORCHARD AND FRUIT GARDEN.

The fruit and vegetable garden lies to the east of the dwelling, and contains from six or seven acres. It is, in every part, protected from the north by a brick wall, though a fine young Osage orange hedge is fast growing up into an additional protection. Here we saw a fine young orchard of several hundred dwarf pear trees, and a large number of different varieties of the maple—the latter planted in nursery rows until they shall have attained sufficient size to be planted out as ornamental trees, about the place. Mr. Calvert mentioned the establishment of Messrs. Thorp, Smith, and Hanchett, of Syracuse, in terms of high praise, and said he now obtained his fruit and ornamental trees from those well known nurserymen. I noticed large beds of strawberries. Mr. Calvert has Hovey's Seedling and McAvoy's Superior, but prefers the Alice Maud. He showed me quite a large number of plants of the new Peabody's Seedling Hautbois—they were sending out a great number of runners and making very vigorous growth—and said that his plants had produced fruit this year which fully equalled the description given by Mr. Peabody. The peach trees looked flourishing, and some dwarf pear trees obtained a few years since from M. P. Wilder, Esq., President of the U. S. Ag. Soc., were loaded with fruit. The grapes cultivated in this garden were the Catawba and Isabella. Among other vegetables, the immense cabbages were particularly remarkable, and the large space devoted to the growth of the yellow carrot attracted my attention. The latter vegetable is cultivated thus extensively as food for stock; chiefly for horses.

THE MANSION—AGRICULTURAL LIBRARY

After inspecting the floral and vegetable and pomological departments we returned to the dwelling, before proceeding to visit the farm, and its appurtenances more strictly agricultural. The dwelling consists of a main building of two very lofty stories and attic, 66 feet front by about 50 deep, with porticos supported by white and blue marble in alternate squares. The wings are two stories high, and though not so elevated have stone columns on front and rear, and paved with tiles of together a front about equal to that of the main building. In the east wing are contained the kitchen and other kindred household apartments. In the west wing the second story contains servant's rooms, whilst upon the ground floor, besides other rooms, is the private office and library of the proprietor. This office is quite a model apartment for a farmer's sanctum. The sides are filled up with book-cases, with glazed doors, containing an extensive and well assorted agricultural and

miscellaneous library. A large and convenient library table and desk occupied the centre of the room, and on it might be seen the very latest of the best English, Scotch and American publications on Agriculture; whilst in one corner, were placed the tripods and levels, compasses, &c., used in laying out and draining different parts of the estate. Among the agricultural publications referred to, I noticed the last number of "The Farmer's Magazine" a monthly published in London—the last number of "The British Farmers' Magazine," a quarterly published in the same city—The Journal of the Royal Ag. Soc. of England,—and the Journal of Agriculture and Transactions of the Highland Ag. Soc. of Scotland—the Am. Farmer, published in our own State, and last, though not least, the "Country Gentleman." For the last named, Mr. Calvert expressed the very highest esteem, and said he considered it the best paper of its class published in this country. He has all the volumes of the "Country Gentleman" from its commencement, and many of them very handsomely bound. It is evidently a great favorite.

The material of which the mansion is constructed is brick, rough cast. The whole structure is of the most substantial and durable character. On each side of the north portico a small forest of Camellias is growing, in pots—they are now, however, of course, with the exception of an occasional flower, out of bloom. From the north entrance the view extends over fields almost perfectly level for nearly two miles, and all within the limits of the estate, until arrested by the woods bordering the banks of the large stream which passes through a great portion of the property. The lawn at the north is adorned by a fountain that plays amid flowers, and is supplied in the same way as that on the south, already described; whilst, dotted about upon the green sward, are various ornamental trees, and, among them, some large and beautiful specimens of the native American elm wave their long, gracefully curved and pendulous branches.

THE FARM—MOWERS—OATS AND CORN.

A stay of nearly two days did not suffice to see all that merited notice upon this very large estate, but being desirous of witnessing the operation of two mowing machines then engaged in cutting grass, we proceeded on the afternoon of the first day to examine them. One of the machines was one of "Manny's Patent" made at Amsterdam, N. Y., by Marcellus, and was drawn by two mules; the other was one of the same patent, but made by Ball, of Hoosick Falls, N. Y. The machine last named was not in operation, and appeared to have received some injury, or to be invalidated from some cause. The agent for the sale of these machines in Prince George's county had undertaken to cut Mr. Calvert's grass at the rate of one dollar per acre, and when we went to look at the Manny's patent it was just finishing, with the most perfect performance, the work of cutting down two hundred acres of timothy. The same party who was agent for the "Manny's Patent" was also agent for McCormick's machines, but told Mr. Calvert that he had not been able to sell any of the latter in that neighborhood, and found Manny's to be the only saleable machine.

Near where the mower was at work I noticed Mr. Calvert's field of wheat. The grain was fair and plump. Mr. Calvert does not bind his wheat into sheaves, but rakes it up into cocks at once, and caps it with a single sheaf. This plan he has pursued for many years, and says he finds it by far the most economical of time and labor, and that this method preserves the wheat better from the weather, and presents no obstacle in threshing. All the labor and time expended in binding the sheaves, in setting them up in proper position, in cocking, and then in cutting the bands when threshing, are saved. The wheat had not been drilled.

To the south of the dwelling the cradlers were busy in cutting a very large field of oats. Upon this field the crop was heavy, and of the two varieties of that

grain growing upon it, Mr. Calvert gave preference to the Polish, which is, however, a little later in ripening than the ordinary sort. The crop of corn, as is the case almost universally through this state, looked remarkably fine, and had attained in consequence of the very favorable season, unusual growth. The sort now chiefly planted by Mr. Calvert is that known as the Yellow Kentucky stock corn, and is from the seed of the last crop ever raised by the lamented Henry Clay—one of whose sons sent Mr. Calvert a present of two bushels of the seed shortly after his father's death.

EXTENT OF THE ESTATE—BARNS—THE GREAT COW-HOUSE.

Riversdale includes within its boundaries nearly 2,200 acres, five hundred of which are in wood, five hundred in grass, and the remainder, except a portion which has been laid out into lots for villas in the village of Ellaville—so named in honor of the daughter of the owner—is under cultivation. The farm buildings are numerous, and some of them remarkable for their size and completeness. In one of the barns I observed that the hay was elevated to its place by means of that most useful modern contrivance, the horse-fork, and a block and tackle fastened at one end to a joist near the roof of the barn; the rope being passed down hence to the ground and the usual system of pulleys made available. To be three or four times thrust in and as often elevated to the proper position for delivery on the mow, was sufficient for this huge fork to empty a cart of its load of hay. The saving of labor and of time by the use of this fork is immense, and the height to which hay or fodder may be elevated with it, is a most important consideration. In another barn of large size—built in what is known as the Switzer style—I found a very large cast iron screw about ten feet long, placed in the center of the upper deck, and an additional length given to it by an oak cylinder attached and playing in a socket attached to one of the joists above. The whole placed in a vertical position and formerly used to press tobacco—the hogshead being placed on the ground floor beneath. The pressure was effected by means of an external screw or large nut, with cast iron arm attached, into which arm a wooden sweep or lever was inserted, and then the revolution produced by horse power. By this means a hogshead of tobacco has been pressed in thirty minutes. It is now designed to apply this contrivance to pressing hay in bales. The most remarkable farm buildings upon this estate, however, are the great octagonal cow-house, and the buildings adjacent. The cow-house being octagonal, stands in the center of a large yard of similar shape, with an interval of sixty feet between the sides of each. This yard is enclosed by buildings for the accommodation of sheep, hogs, calves, cows with calves, and poultry. There are four entrances to the yard, and as many to correspond and exactly opposite, in the central building. This building is one hundred feet in diameter, two stories high, and surmounted by an octagonal cupola twenty feet in diameter, and having glazed sash on every side, accessible by a spiral stair case from the interior, and movable—so that light and air are thus supplied to the whole edifice in abundance. A fanciful iron vane in the shape of a cow, gilt, crowns the whole. In addition to the light furnished from the cupola, there are two windows in each of the eight sides on the first floor. The center of the first or ground floor, is occupied by a feed room thirty-six feet in diameter, whilst adjoining it, but separated each from the other by an interval of eight feet, and the outermost by the same interval from the wall of the building, stand two rows of cows facing inward. The cows do not stand in stalls, but are secured by stanchions. Behind each row of cows the ground is graded, and paved with brick, so that there is a descent from the center of each side of the octagon, parallel to the side, to the gutters, radiating through the angles, and in this way a perfect drainage is secured to the manure tanks on the outside of the yard. The second story is used for storing the provender. This

building will accommodate 104 cows. A more detailed description of this structure would be given, but that an account of it has heretofore been published from the pen of the owner, in the 4th vol. of the Co. Gent., at page 108, &c.

THE STOCK—FERTILIZER—WIRE FENCES.

Mr. Calvert's herd now consists of Alderneys, Short Horns and Ayrshires. The Alderneys, however, he prefers. He has seventy head. His favorite breed of hogs, and the best in his opinion, are the Suffolk. Of these, as well as the Chester, with which he designs crossing to give size, I saw some fine specimens. From B. V. French, Esq., of Braintree, Mass., he thinks the best Suffolks are procurable. To the South Down sheep he gives the preference over the Cotswolds. Of the former he showed me some excellent specimens. He uses the portable sheep rack for feeding. They are sixteen feet long—have two small wheels at one end, and handles and legs like those of a wheel barrow at the other, so that they can be rolled with facility from place to place. The rack is filled by lifting the lids which overhang it, and afford protection against the weather to the sheep when feeding. For farm work he uses mules chiefly.

As a fertilizer, and from his own experience, the Columbian guano in Mr. Calvert's opinion, produced for the same amount paid, a much better effect than the Peruvian, and in this way he thought it should be considered cheaper than the latter. His proportions for bone dust and ashes, applied to the acre, are five bushels of bone dust to twenty bushels of ashes. Of grass seed he sows to the acre, one gallon of clover seed and one peck of timothy—and one gallon of clover seed and one bushel of orchard grass.

Wire fencing has been very extensively introduced upon this estate. There are five hundred panels of it. For the outside fence upon the turnpike, No. 4 wire is used, but for the interior fence No. 6 is considered sufficient. On the turnpike sawed red cedar posts about two and half inches square at the small end, are used. A rail of hemlock plank six inches wide, is nailed on at bottom, and then five wires are stretched and fastened to the post by short iron staples. The two bottom wires are five inches apart, the next six inches, and the two top wires twelve inches apart. Each panel is eight feet long, and seventy-five cents the cost per panel.

UNDER-DRAINING WITH WOOD, &c., &c.

The under-draining at Riversdale is quite extensive, and is accomplished by first making the usual excavations,—then nailing two long strips of pine plank, six inches wide, so as to form a right angle in the direction of their length, and staying them by three short pieces nailed across the opening of the angle—(one short piece in the middle and two near each end) a trough is formed. This is placed in the ground with the angle uppermost like the roof of a house. The sections of these troughs are united by the joints being bevelled so that one will slide into the other. Wood placed under ground out of the reach of changes of temperature, and constantly saturated with water, will last a long time, and Mr. Calvert says this mode of draining has thus far proved successful with him; but it seems to me that he will find this sort of drain will not prove permanent, but will ultimately choke, and require constant care and examination and repair. He spoke highly of the Chinese sugar cane as food for cattle, and mentioned that he has planted it this year for that purpose.

In conversation with Mr. Clemson, formerly Chargé to Belgium, and so well known here as a chemist and writer on scientific subjects, whom I had the pleasure of meeting at Mr. Calvert's, he stated that the ordinary musk placed at the root of a peach tree, so that it might be taken up with the food of the tree, would affect the taste of the fruit. Many substances will affect the color of the flowers of certain plants, as is well known. Mr. Clemson suggested oxide of manganese

as best to impart a blue color to the Hydrangea; and Mr. Calvert said he had known ordinary marsh mud to produce the same effect. These remarks may suggest some interesting experiments to your readers. Among other useful agricultural implements, my attention was directed to an excellent clod-crusher, constructed like that made in England, and bearing the name of Mr. Crosskill.

This communication has already extended to such length, that the desire not to exceed a reasonable limit or to trespass too long upon your patience and that of your readers, warns me to bring to a conclusion this very imperfect account of a place containing so much to interest the agriculturist. E. L. R. Baltimore, Md.

Notes about the West.

A STOCK FARM.—Among our calls on the Prairies, was one on Mr. JOHN EDGINTON, who is, we believe, President of the Rock Island Co. Ag. Society. Mr. E. was not at home, but we had the pleasure of meeting him afterwards, when he informed us that his farm consisted of between 1200 and 1300 acres—that he had this season 170 acres in corn, 60 acres in spring wheat, and 30 acres in oats, and about 300 acres seeded to clover and timothy—that he kept about 200 head of cattle, and fattened 200 or more swine yearly. His income is derived mainly from the sale of these cattle and hogs, though he must have a considerable quantity of wheat to dispose of.

Our eastern readers will doubtless be surprised to learn that on all this large farm, with 200 head of cattle, and where the mercury falls from 10 to 25 degrees below zero, we found but one barn, and that a moderately sized one, intended chiefly for horses. The cattle are fed through the winter mostly on corn. The corn is cut up and stooked in the field in autumn, where it remains until it is wanted in the winter, when it is fed out by the load, the cattle eating corn, cob and stalk, or as much of them as they will. The hogs are turned in the next day, and they are supposed to find and eat all that the cattle leave. We could not look upon such a system of feeding but as most wasteful; but Mr. E. maintained strenuously that it was the most economical and profitable course for him to pursue. Admitting that he could make one-quarter or one-third more beef or pork, by providing proper shelter for his stock, and husking and shelling his corn, he contended that he could raise a quarter or third more corn at a less cost than he could provide shelter and husk and shell his corn. It is possible he may do this for a time, but that does not change our opinion of the system he pursues, for we believe that he might, with a different course, very greatly increase both the products and profits of his beautiful and productive farm.

MANURES.—The idea is very prevalent among all the farmers we met, that manure is of very little value on prairie land, or at least not sufficiently so to make it worth the labor of putting it on the land. Mr. E. would seem to be of this opinion, as we saw no evidence that any manure was saved from his 400 head of domestic animals. Rich as the prairies are admitted to be, the course of farming now so generally pursued cannot fail to impoverish them, and we doubt not that even now the cost of saving and applying the manures which might be made on the farm, would be amply repaid by the increase of the crops to which it might be applied. Beside this, by the saving and application of this manure, and in no other way, can the present productiveness of the soil be preserved and increased. To our view no man is a good farmer—no matter how much money he may make from his farm this year or next—who does not pursue such a course as will not only bring all his tillable land into the highest state of pro-

ductiveness, but enable him to keep it in that condition. That this may be done, and that too without the aid of foreign capital, has been often demonstrated in our pages.

THE GRASSES.—Thus far comparatively little attention has been given to the cultivated grasses, the farmers relying mostly on the supply furnished by the unbroken prairies, both for pasturage and hay. But the time has come to many, and is rapidly approaching, when all will have to provide on their own land at least for their winter forage. Unfortunately timothy—the favorite grass with eastern farmers—and almost the only one sown at the west—does not do well on the prairie soil. When sown with clover a good hay crop may be expected for one or two years, but after that the timothy dies out; and last winter (for the first time as we were assured) the clover through a large extent of country was all winter-killed, causing a heavy loss to those who depended on their own meadows for hay. One gentleman who had 300 acres in timothy and clover, informed us that not more than one-half of it would yield enough to pay for mowing, and that the other half would scarcely yield a ton per acre. But we did see one good piece of timothy meadow, with a thick, well set sod, and we refer to it to enforce what we have said above about manure. It was on the beautiful and well cultivated farm of Dr. JAMES WEED, situated on the bluff of the Mississippi river, back of Muscatine, Iowa, and for a visit to whose place we were indebted to J. H. WALLACE, Esq., Secretary of the Iowa State Agricultural Society, who took us out from Muscatine in a buggy drawn by a Sherman Morgan stallion, with a little more energy than we should have liked to have ridden with the reins in less safe hands. In riding over Mr. Peck's meadows we were struck with the marked superiority of the timothy sod over any we had before seen. The secret of its compactness and the fine thick growth of grass was, however, readily understood when Mr. P. informed us that it had received the past season a good top-dressing of farm-yard manure. But, said we, do you think manure is of any use on this rich prairie soil? "Yes," said Mr. P., "manure is worth as much here as in Connecticut, though not as absolutely necessary here as there, and I save and apply all I can make." Here was proof positive, were any needed, to show the value of manure even on prairie soil, and the sooner the farmers on it learn its value the better it will be for them. If timothy will do well with an occasional top-dressing, the farm-yard manure will be found of great value for this purpose alone. Mr. DE GRAFF of Buffalo Prairie, informed us that he intended this season to sow an acre of Millet, to be cut for hay, by way of experiment, and Mr. C. G. TAYLOR of Pleasant Ridge, proposed to try an acre of Chinese sugar cane, for the same purpose. We shall be glad to hear the result of both these experiments. But we doubt not some variety of grass will be found, which will do well on the prairies, and probably a mixture of several kinds will be found best for both meadows and pastures.

WINEGAR'S WATER ELEVATOR.—Dr KENNICOTT, one of the editors of the *Prairie Farmer*, has one of these Elevators, figured and described in the Co. Gent., vol. ix, p. 272, in operation. He says: "We ought, perhaps, have noticed this apparatus sooner, but wished to test it fully before doing so; and we now invite those desiring a cheap and reliable means of raising water from deep wells, to call and see the thing at work in ours. A child of ten years old can turn it easily, and every revolution of the winch raises the three gallon bucket about two feet, until it strikes the trigger and delivers its load without effort."

CLOVER HAY FOR SHEEP.—"According to our somewhat extended experience there is no hay equal to well made clover, both red and white, for feeding sheep."—LT. GOV. BROWN.

Cutting Fodder for Horses and Cattle.

MESSRS. EDITORS.—In the Country Gentleman of Aug. 13, page 108, I notice an inquiry "as to the economy of cutting hay, straw, stalks, &c., for farm stock."

I have never practiced cutting feed for any other stock but horses; and on the economy of this I feel pretty well posted. I keep but two horses, and keep them for all work. There is scarcely a day in the year but that one of them, and frequently both are in the harness. For the last five years I have constantly fed them with cut hay or straw, and am satisfied that one-fourth at least is saved in the expense of keeping by this process.

They are stabled mostly throughout the year, and the hay that they would pull out of the manger, tread under foot and waste, (if kept upon uncut hay with the addition of twelve quarts of oats per day) would keep them in better condition if cut fine, wet, and the equivalent of the twelve quarts of oats in meal mixed with the wet cut hay. There is no waste in cut feed; all is eaten up clean, and with an apparent relish that is not often seen in feeding whole hay. Whenever I have bright oat straw, cut rather green, and well cured, it is used for horse feed instead of hay, and proves a good substitute, unless the horses are working very hard, when good hay should be cut for them.

The best kind of meal to mix with cut feed for horses, is three-fourths corn and one-fourth rye, mixed before grinding; the rye is of a sticky nature, and causes the meal to adhere more closely to the cut hay or straw when wet; and six quarts of this meal per day, with a small quantity of good hay or bright clean straw, is sufficient to keep a horse of ordinary size in good condition, unless when put to very severe service, and then a quarter to a third more should be added. In summer a little fine salt should be sprinkled into the mixing trough every day to prevent its souring, and in winter, or in the coldest weather, warm water should be used in wetting the feed.

There is another advantage in keeping horses in this manner. Since the horse-rake has come into general use, our hay is more foul and dusty than when raked by hand, and horses are much more liable to a cough, and eventually wind-broken, than formerly, and keeping upon wet feed prevents all this. One of my horses coughed badly, breathed hard, and had all the symptoms of what is called the heaves when I commenced cutting the feed, but these indications of disease have long since disappeared, and though 26 years old, he will do as much work as he could fourteen years ago when I became his owner.

As to the utility of cutting feed for other farm stock, for cattle and sheep, I can say nothing about it, for I have had no experience therein. One thing, however, seems to be against it; neither cattle or sheep like *wet* feed. In a wet time in the winter, if good hay gets wet they will eat but very sparingly of it; they will waste more than they will eat. That their tastes and appetites might be trained to like it, if cut fine and meal mixed with it, I think very probable.

If your correspondent means to inquire whether it is economy to cut hay and other fodder for stock to feed in a dry state, and without mixing meal with it, though, as I have just remarked, I do not, for want of experience, feel competent to give an opinion, yet I cannot but entertain strong doubts of its paying for the extra labor and cost. J. W. COLBURN. *Springfield, Vt.*

KOHL RAB.—E. B. T., *Fort Miller.* You will find an answer to your inquiry in your March Cultivator for this year, p. 95.

Scours in Calves, Cows, or Cattle.

"A Subscriber in Michigan" wishes to know why his neat stock should be troubled with looseness of the bowels this season more than usual, and also what method he could adopt in the management of them with the greatest prospect of success. His cows, he states, give but a scanty mess of milk, his cattle seem easily put out of breath, and are loggy at work, and two calves are getting worse ever since the last of May.

Without some knowledge of the pastures on which the animals feed, of the kind of water they drink, and the amount of salt with which they are supplied, it must be obvious that we are not in possession of data sufficient for the formation of a correct judgment as to the cause of the trouble in this case. This season the grass must be flashy, or more than usually succulent, from the unusual coldness and wetness which has prevailed in Michigan and most other states; and this condition of the feed may contribute a good deal towards producing the trouble complained of, or be the sole cause thereof. Then, again, there may be some peculiarity about the water, which may have something to do with it. We have known springs and wells so abundant in saline matter as to act on both human and brute animals as a cathartic or laxative, according to the quantity drank. Then, again, a too liberal use of salt may have something to do in producing the disease. Cold, wet nights, of which there have been many this summer would also aggravate complaints of this kind, and might even of themselves be sufficient to produce them in a calf that was tender, delicate, or not supplied with sufficiently nourishing food. It is certainly poor economy to stint a calf, especially one of an improved breed, as is often done, by substituting skimmed milk, hay tea, slops, &c., for the food which is provided for them by nature—the best nurse and raiser of young creatures. Then again, the digestive organs of some calves seem so tender as to be irritated by bran, corn meal, and other things of this kind which are sometimes used to make skimmed milk, teas and slops, a little more nourishing.

Let all these things be considered and investigated, and probably some light may be obtained as to the cause, or combination of causes, producing the disease. And this is highly important, or we might say, absolutely necessary, for very little can be done towards the cure of a disease until the cause, or combination of causes, producing it is ascertained. The first step towards a cure is the removal or abatement of the cause or causes producing or keeping up a disease.

One of the calves being three-quarters Shorthorn, and "very valuable," should be taken from pasture and put under cover. This will prevent the aggravation of the disease which flashy grass, and cold nights, and heavy dews are quite likely to produce, and may be all that is needed. If the scouring should not subside in a day or two after housing this calf, let the milk be scalded or boiled and thickened more or less with wheaten flour. Give no bran, corn-meal, nor oil-cake. Should the scouring still continue, give the calf a teaspoonful of prepared chalk, a teaspoonful of catechu, a half of a teaspoonful of ginger, and a teaspoonful of laudanum, or three grains of opium in some thick gruel or porridge three times a day until the disease abates. Give less and less of this medicine as the scouring becomes less. Carefully guard against arresting the disease quite suddenly, as it is much safer and better every way to have it checked gradually.

By the help of the above hints we think any person of good judgment, or having a tact for nursing, may be enabled to cure a not uncommon disease in calves.

Cows and cattle may be treated in a somewhat similar manner. First of all it is necessary to discover and

withdraw all irritating causes, such as have been named. If the pasture is on low or wet land, a change to an upland pasture may go far towards abating the complaint. Feeding a little dry hay night and morning, and putting cows and cattle in stable or under cover during night, are among the first things to be done after removing all causes known or suspected. Giving the creatures a good currying may do good by increasing the circulation in the external surface, which will naturally decrease the determination of blood to the internal surface.

If these means should not be sufficient, we would advise the employment of the remedies prescribed for the calf, but in larger doses. Those who have preserved our volume for 1855 will find mention made of cures effected by giving raw eggs, rennet, black pepper, &c. But a mixture of chalk, catechu, opium and ginger, will cure nine of every ten of such complaints.

Leghorn Fowls.

MESSRS. EDITORS—I was much surprised to see my last letter to you published. It was not intended for publication. However, since the fire has started, I would feel better satisfied to give a more clear account of the Leghorn fowl, and after that let them stand upon their own merits.

The Leghorn fowl is a native of Italy—more abundant about the neighborhood of Leghorn than other sections of the country. They have had no attention, as far as I can learn, paid them until quite recently; and even during the past few years there have been but one or two importations of them. I have had them nearly three years, and have not yet known a hen to show the least desire for incubation. They have the same immense comb of the Spanish, with the white ear-lobe, but not a white face. Their plumage varies but little, being either white or Dominique—occasionally, as with birds of every other variety, even with the most careful breeding, they show another color; such a thing, however, is of rare occurrence. Their legs invariably yellow. They lay when six and eight months old, and, unlike most fowls, have no particular time when they cease to lay; even during their moult they lay; and such a thing as a hen ceasing for two weeks at a time during any part of the year to lay, is something I have never known. As fowls they are hardy—as chickens unusually hardy, and as an ornament not to be excelled in the way of poultry. In size they are about equal to the Bolton Gray or Creole—perhaps a little larger. As birds for the table, they are equal to any of the fowl tribe; their flesh juicy and tender,—and I might add that, like the Dorkings, they fat earlier and younger than most varieties of fowls. As keepers they will rank well—certainly eating as little and looking as well as any other members of the poultry-yard.

I will conclude these remarks by copying from my poultry-book, in which I keep a strict account of the doings of my fowls, the work performed from the first day of April to the 30th day of June inclusive. Keeping always ten hens in each pen, with sometimes one cock and sometimes more, according as I thought best—feeding the occupants of each pen alike, and as nearly as possible at the same time. The time stated is 91 days—the

Dorkings (Gray) laid,	428 eggs.
Silver Polands "	545 "
Golden Polands "	548 "
Black Spanish "	622 "
Leghorns "	831 "

Now, gentlemen, I have given you an account of my fowls as truthfully as I can. I have kept and are keeping my poultry-yards entirely for amusement—not for money making. If for the latter, I assure you I would

be most sadly disappointed. ROBERT W. PEARSALL.
Harlem, N. Y.

N. B. I enclose you a letter, which I received on Monday from an entire stranger, with which you can do as you please. It will show that others think as highly of the Leghorns as I do. R. W. P.

From the letter referred to, we make the following extract:

R. W. PEARSALL, Esq.—Reading this morning your letter to the "COUNTRY GENTLEMAN," I am induced to open a correspondence with you in regard to the Leghorn fowls. I am an admirer of good fowls, and have taken some pains to experiment with the same, and concur with you in saying that the Leghorns are by far superior to all others I ever knew anything about.

I wintered six pullets. I got the first egg from them Nov. 12. March 29 I added four to the number, and up to the first of August received from them 1245 eggs. I have taken no extra pains with them. One of my hens has been in this country upwards of four years, and has not wished to set yet. She lays steadily, and her eggs hatch well. My cousin brought mine from Leghorn. J. L. D. Norwich, Conn.

We acknowledge the receipt of a pair of white Leghorns fowls from Mr. ROBERT PEARSALL of Harlem, N. Y. The birds are this summer's chicks, so that it is impossible to say what their weight will be; but judging from the size of their legs, the size of their combs and wattles, and their general appearance, we think they will fall considerably short of the weight of the true Spanish. They are entirely white, with yellow legs, scarlet combs and wattles, and reddish faces. They are trim built, sprightly and active, and from Mr. PEARSALL's statement, will no doubt prove to be good layers. Mr. PEARSALL has our sincere thanks for these fowls. We will give them good fare, carefully note their development, and report the result to our readers at a future day.

Apples for Stock.

MESSRS. EDITORS—What is your opinion of the value of sweet apples for stock feeding, and what varieties are the best for this purpose? Which is the best season for transplanting fruit trees, spring or autumn? A SUBSCRIBER. Shepherdville, Ky.

Sweet apples are of great value in feeding almost any kind of farm animals. Hogs will fatten rapidly on them, as well as on the richer varieties if not sweet. Cows, if not over-fed with them at the start, and care is used to cut or mash the apples so as not to choke them, will increase in milk and improve in condition. Apples are an excellent succulent food for horses in winter. Any varieties of sweet apples that bear abundantly, will answer the purpose. Unfortunately, but little attention has been given to varieties for feeding domestic animals exclusively. Hardiness, thriftiness, and great bearing qualities, are the main requisites. For early feeding, probably the *Hightop* or *Summer Sweet*, of the west, may prove one of the best. There are several autumn sorts, at least worthy of trial, among which are the following:—*Coolies' Sweet* is a fine grower, and a very productive New-Jersey variety; *Jersey Sweet* is also very productive, but the tree is less vigorous, and said to be not entirely hardy at the west; *Munson Sweeting* and *Haskell Sweet*, are both productive and of excellent quality, but not yet much tried west of New-York; the *Pumpkin Sweet* may prove a good autumn sort for this purpose. The *Sweet Pearmain* is said to succeed well at the west, and may be valuable for late fall and winter feeding. The same remark will apply to the *Sweet Romanite*, a western variety. The *Wing Sweeting*,

although not large, is very productive at the east, and keeps well—if as much so at the west it would be valuable. The *Green Sweet* is hardy and productive, and keeps into spring.

The American Butter Worker.

AN ANSWER TO AN INQUIRY.

MESSRS. TUCKER & SON—I noticed several weeks ago, an inquiry by a farmer's wife, for a butter worker, which had been noticed in the Co. Gent., doubtless referring to the American Butter Worker, a cut and description of which we furnished you, and which may be found in the Nov. No. of the Cult. for 1856, and in No. 17, of Vol. 8, of Co. Gent., 1856. We thought we would not answer the inquiry, as we do not expect to do a retail business at selling workers. We procured the right for this State and the six Eastern States, and we intended only to manufacture enough to supply those who purchase of us a right to manufacture, as they all need a model, and a few incidental orders for them. But as many orders came in for workers, and circulars, which we send gratis, we have managed to fill all orders by obtaining workers of those to whom we had sold a right. This we shall continue to do for the present.

Your inquirer asks if the workers have any real merit, and if they have come into general use. They really possess all the merit that can be expected of any machine for working butter, as they are very efficient in every respect, and as the leverage in working is very powerful, hard butter can be readily worked with them.

They have not come into general use as yet, because it is only about a year since they were introduced. But they all perform very satisfactorily as a great labor-saving machine, and there is only one drawback to hinder their universal introduction, and that is, they are machines for females, generally. When a man has the charge of the butter in a large dairy, workers are readily disposed of; but when a female works the butter, there are a hundred excuses for not purchasing a worker, which are usually all summed up in the price for a worker.

I sell No. 1 workers at the lowest cash cost of the manufacturer, \$6; and put but a small profit on Nos. 2 and 3. My agents all assure me, that were there such an efficient machine for the men to work with on the farm, every man would have one immediately. And as there cannot be one half the profit put on these workers, when compared with the profits on the common implements of agriculture, but few manufacturers are willing to keep them on hand for retail. Respectfully yours, S. EDWARDS TODD. Lake Ridge, Tompkins Co, N. Y.

Lice on Cabbage.

EDITORS CO. GENT.—In answer to inquiries in your last No., allow me to say that soap suds in which clothes have been washed, poured over the cabbage when cool, with a watering pot or otherwise, once a week or oftener, will not only destroy lice and worms, but will greatly facilitate their growth. This I have ascertained by many year's experience. L. L. W. Clear Branch, Va.

Blue Hydrangeas.

A writer in a late number of the *Gardener's Chronicle* says, speaking of Blue Hydrangeas, "All your correspondent has to do is to mix some iron-filings, or perhaps better still, iron scale from a blacksmith's forge, in the earth he pots his Hydrangeas in, to obtain the blue required."

Notes in Albany County.

A population mainly of Dutch extraction and habits; a soil bearing a remarkable resemblance to the "Pine Barrens" of the South; a Patroon, or "lord of the manor," like an ogre in the story books, and a tenantry of the most decided anti-rent and tar-and-feathering proclivities,—with many persons in other parts of the State and country, these are the characteristics by which Albany county is supposed to be peculiarly distinguished! One who winds his way out of the city on the railroad leading west, and judges only from the wildness and infertility of what he sees, together with the veracious effusions of the newspaper that may have fallen into his hands—will not come to such a conclusion, it may be, without some appearance of reason. But let him join us behind a pair of horses intelligently directed, and we should hope to give him a better and truer view, and to win his admiration and approval, however fastidious, for much that he should witness between this and the Helderbergs.

In more than one direction from the city, our friend would find a formation and soil which must repay the labors of skillful husbandry; a diversified surface occasionally presenting as fine an agricultural prospect as is often met with; a growing tendency to improvements, manifesting itself in neater fences and more tasteful dwellings, in better and larger barns, and in stock marked more or less distinctly by the merits of well bred progenitors. He should be introduced to some substantial, enterprising and reading farmers, whose lands, although cultivated while the Indians were still almost their neighbors, are yet unexhausted, and in numerous instances now being renovated and improved by the production of grass, the feeding of stock, and the use and economy of manures.

Near the end of last month we enjoyed a very pleasant drive to the farm of the President of the County Ag. Society, Capt. HILTON; stopping on our way at the City Alms House, whose grounds invite a call just after leaving the city pavements, on one's way toward New-Scotland. The present active Superintendent, Mr. WM. HURST, has done much to improve the appearance, increase the comforts, and add to the resources of the establishment. He has an excellent gardener, and a cozy little hot-house, and the plants both in it and out of it, bear evident marks of intelligent and industrious care. The garden is a great addition to the institution, and the attention paid to keeping it and the remainder of the grounds in good order, is worthy of high commendation.

Among the cattle kept at the Alms House are a number of head of Short Horns of superior merit, including the bulls "Balconi" and "Damon," both of which we think have been heretofore noticed in our columns. The stock of pigs, reaching some 150 in number, are also very nice, including Essex, Berkshires, Cheshires and Suffolks. The poultry department is worthy of notice. We regretted to be unable to spend more time in looking over the farm, which comprises 216 acres. About seven miles of tile drains have been laid, which will doubtless prove of permanent advantage. The inmates of the institution now number 360, of whom 104 are in the insane department. The buildings, both for dwelling and farm purposes, have been much improved within a year or two past, and the whole is well worthy of more than a mere passing call.

From thence over a plank road to Capt. HILTON's, one is carried most of the way through a good farming country, some of which bears evidence of improved treatment. Our friend has 330 acres, beautifully situated, almost the whole of it being in view from his dwelling, and naturally well drained. His father settled

upon the place fifty years ago, and those parts of it that have been in cultivation for the past forty years, now yield, as we were informed, quite as well, if not better than ever, owing to a better system of cultivation. Capt. H. has this year 70 acres in rye, 30 in oats, 25 in corn and potatoes, 80 in meadow, 60 in pasture, and the balance under wood. There are perhaps a thousand apple trees on the farm. The soil is a gravelly loam, but in many parts quite free from stone, and will grow a crop of 30 bushels of rye, 50 or 60 of oats, 40 to 50 of corn, and two tons and a half of grass to the acre, in a good season, without its being considered an extraordinary yield.

Capt. Hilton's system of farming consists in having more pasture than his stock need, enriching his land by their manure, as well as by the surplus vegetation it produces, and leaving in all his crops and calculations a margin for the benefit of the soil, instead of "skinning" it as closely as possible each succeeding year. He makes large quantities of manure and buys some fifteen tons of plaster annually, while he can sell a hundred tons of hay, and keep up his stock and farm in good condition. He has used one of Ketchum's mowers for three years, and it has this season given him even better satisfaction than ever before. Wheat used to be a staple crop both with him and his neighbors until about fifteen years ago, when the midge began to render it so very uncertain, that it was entirely given up—rye, which never misses, having now taken its place. The present season, rye, oats and grass all promise an abundant yield.

The stock on the place includes ten head of Devons, from the best herds or importations to be had, and affording an excellent basis for future operations. Among them are the cows "Edith," "Nonpareil" and "Moss Rose" imported, the first by Col. Morris and the last two by C. S. Wainwright, Esq.; the fine bull "Empire" from the Hurlbut importations; "Master Quarterly" and another promising young animal "Albany," bred on the place. The other cows are Volga, Empress, Ruth and Rouge. A pair of beautiful working oxen deserve especial notice. Capt. H. has about fifty head of sheep—a cross between the Bakewell and South Downs, which he finds pay well for feeding.

This farm affords a fair example of the best class of farms in Albany county. There are others,—to several of which we have long been promising ourselves a visit, perhaps equally worthy of notice. Their owners are all practical men, who depend on their land for their living, and find that well directed labor in tilling it is sufficiently "profitable" to meet all their expectations. The enterprise they have shown is of service to their neighbors, and we trust they will have proof that it is appreciated, in the support extended to their efforts to improve the stock of the county, and extend the usefulness and increase the variety of its shows.

A Princely Prairie Farm.

We find an account of a visit to the farm of Mr. M. L. SULLIVANT, in Champaign county, Ill., in the *Agricultural Press*—from which it appears that Mr. S., who was for a long time, we believe, the most extensive farmer in Ohio, commenced operations in the spring of 1856, on a 20,000 acre prairie farm, and that he has already about 7,000 acres broken up, 3,000 of which are in corn, and the remainder in wheat, barley, oats, flax, &c. His wheat crop is estimated at 15,000 bushels, and his corn crop, estimated at only forty bushels per acre, would amount to 120,000 bushels. Over one hundred hands were employed on this farm, with one hundred and twenty-five yoke of oxen and about fifty horses. Beside this 20,000 acre farm, Mr. Sullivan has another, consisting of "some forty thousand acres," upon which he will commence operations as soon as he gets the one upon which he is now at work under culture.

Notices from Foreign Agricultural Journals.

TRANSLATED FOR THE CO. GENT., BY PROF. S. W. JOHNSON.

Comparative Nutritive Value of the Chinese and Common Potato.

DR. GROUVEN analyzed a tuber of the *Dioscorea batatas* which was successfully grown last year in the botanical garden at Bonn.* He compares its composition with that of a white potato which he cultivated in 1854 under the influence of various fertilizers, and concludes from his results that the Chinese potato, as it grows in the climate of Bonn, is inferior to, and cannot replace the common potato. The analyses are as follow :

	Chinese Potato.	White Potato. with min. manure.	with nitroge- nous man.
Water.....	83.00	76.40	75.20
Starch.....	8.00	14.91	15.58
Nitrogenous matters,	1.13	2.17	3.60
Dextrine & mucilage,	1.92	2.34	1.29
Sugar.....	0.72	0.15	0.11
Fat.....	0.32	0.29	0.31
Extractive matters...	3.11	1.70	1.99
Woody fibre.....	0.70	0.99	1.03
Ash.....	1.10	1.00	0.90
	100.00	100.00	100.00

Solubility of Glass and of Soil in Water.

PELOUZE has found that while glass vessels are attacked by cold or even by boiling water, with exceeding slowness, pounded glass is quite easily decomposed. Water was boiled for five days in a glass flask holding half a pint, and the vessel lost in weight scarcely two grains. The neck of the flask was then taken off, finely pulverised and boiled with water for the same time. Nearly one third of it was decomposed.

The glass of a bottle in which water might have been kept for years without action on it, when pulverized and left for only a few minutes in contact with cold water, lost two-thirds per cent. of its weight, so much being dissolved by the water.

What is the agricultural value of these facts? The compound minerals which are the chief ingredients of the granite rocks, and accordingly of the soils of nearly our whole country, are similar or analogous in composition to glass. Like it, they (felspar, mica, hornblend, augite,) are silicates of lime, magnesia, alumina, potash, soda, and iron, and like it they are decomposed by water. The small quantities of mineral matters thus unlocked from their combinations, form an essential part of the food of the plants. If these bodies (including also, but in relatively smaller quantities, phosphoric and sulphuric acids) are continuously dissolved as fast as they are needed by vegetation,—there (if its texture be good) the soil is fertile. Now the readiness with which these minerals are dissolved is increased by pulverization, to the same wonderful degree as is the case with glass. Actual experiments have demonstrated this, and hence we see the value of pulverizing the soil. It is not to be expected that we can ever actually grind up the soil, or subject it to so much rubbing as would amount to a pulverization; but it only needs a small relative extension of surface to increase the solubility of the soil so much as would be very perceptible in the crops. But the most important bearing of the fact we are considering, is in serving to explain the almost inexhaustible fertility of some soils. The soils of the Scioto Valley, Ohio, and others in Kentucky, having the same origin and qualities, have yielded the heaviest crops for years without manure. One cause of this productiveness is their exceeding fineness. So the soils of the Bannat, in Hungary, and the immense grain fields of Southern Russia, possess the same

* Bonn is on the Rhine, near the northern limits of the wine region in Germany.

characteristics. We know that the principal cause of the great efficacy of superphosphate of lime over mere bone-dust, consists in its exceeding fineness.

The reason why pulverization increases the solubility of glass or of soils, lies simply in the increase of surface. A hard lump of sugar may take hours to dissolve, when as much pulverized sugar disappears in a minute. We see then that by making manures fine, we increase their action, and by pulverizing the soil we get "more land to the acre."

Sorghum in high Latitudes.

In former "Notices" have been given the results of the successful cultivation of this plant, both as a source of sugar and as a means of forage, in the warm climate of southern France, as well as its failure to furnish sugar when raised in the climate of Stuttgart, in central Germany.

ROHDE, at Eldena in Pomerania, north Germany, has made some very thorough trials of the feeding value of sorghum compared with maize. He found that in that climate an acre of ground produced but about one-third as much green fodder, when in sorghum as when in maize.

His trials, and others made at Berlin, also confirm those carried out at Stuttgart, viz; that in cold climates the sorghum cannot be profitably grown for the sugar it yields.

Management of Barn-yard Manure.

It appears that along the shores of the Baltic, the practice of spreading manure upon the fields sometime before plowing it in, has long been in favor. Dr. SEG-NITZ has made some comparative trials at Eldena, which demonstrate the excellence of the practice.

STOECKHARDT at Tharand, and WALZ, Director of the Agricultural Academy at Hohenheim, near Stuttgart, have also conducted exact experiments with the same results.

STOECKHARDT determined by analysis the loss of ammonia which manure may undergo, and found it very trifling. This accords with the results of Dr. VOELCKER, and strongly confirms the experience of Mr. Johnston of Geneva, and Mr. Norton of Farmington.

With such concurring testimony, from the side of both practice and science, there is every reason why farmers should multiply experiments; for a score of well conducted trials would go very far towards determining under what circumstances surface manuring is best, and when, if ever, it is inferior to the other plans of application.

Potato Boiler.

EDS. CO. GENT.—Many years ago I constructed a potato boiler, to which, in cheapness and convenience, I have not since met any thing equal, particularly when only a small business is done.

In its general outline it is an oblong box with a sheet iron bottom, set over a confined fire.

1. Procure a sheet of good Russia stove-pipe Iron. It may be five feet long and perhaps thirty inches wide, (more or less.) Make a strong pine box, whose outside dimensions are the same as your sheet iron, and about two feet deep. Punch holes in your iron with a steel punch, laying the iron on some smooth, hard, wooden surface, such as the end of a log. These holes should be about one-half inch apart, in two rows, the rows being about one-third of an inch apart, and the holes in one row alternating with those in the other. Turn your box bottom upwards, and nail on the iron with small shingle nails, first putting a piece of cloth list on the edge of the box to make the work tight. The edge of the box should be of good timber, otherwise the nails driven in two rows thus, will be in danger of splitting it. Now make a cover to your box in the form of

a battened door. The whole may be done with unplanned boards. Your box is now done.

2. Now build two parallel walls of stone or brick, on dry solid ground, near your hog pen, or in the hog house, if you have one. They may penetrate a little into the ground if you wish to build quite durably. The height should be about from eight to ten inches, and the space between them eight inches less than the width of your box, and the length about two feet more. Your wall being made, spread a little soft mortar upon the wall and set your box upon the mortar. You will see now that your box laps over on each side of the fire chamber four inches, upon the wall. This is for the purpose of guarding the sides of your box, where the sheet iron is nailed on, from access to the fire. The box should not reach quite to the front end of the wall, a few inches being left for a long narrow stone to guard the front end of the box from the fire which sometimes will flash up from the mouth of the fire chamber. At the rear end a similar stone may be placed, beyond which a stove pipe may be inserted, or a regular chimney may and should be built if the boiler is placed inside of a building.

It is obvious that a boiler thus constructed, with the fire playing directly upon its sheet iron bottom, will feel the influence of fire directly, and take but a small amount of wood.

It will be seen, however, that such a sheet iron bottom will not bear a hard strain. Accordingly, before it is charged with potatoes, a rack must be made, by taking two small bed pieces, say two by two inches, made of small scantling or plank; those should be the length of the inside of the box. Across them, at about one-half inch apart, nail slats, say one inch square and of the length of the width of the box, on the inside. Let this rack be laid in the bottom of the box. It will be seen that the bed pieces of the rack lie upon the wall, and so save the bottom of the box from strain. The box may now be filled with potatoes, beets, cut pumpkins, or whatever you wish to boil; before kindling your fire, some six or eight quarts of water may be poured in. When the fire is applied, this water will steam up and condense again, until the whole mass is boiling hot.

When your potatoes are cooked, a point readily determined by raising the cover, shovel them out into your mash tubs, mixing them with meal if you wish. If potatoes alone were boiled, you may draw off the black water left in the bottom by a plug at one corner. If pumpkins or sweet roots of any sort had been boiled alone, or with the potatoes, this water may be dipped out into the mash tub.

If desirable, the boiler may be immediately filled a second time, when being hot it will boil with much less wood. If not used again at once, a little water should be left in it, to counteract the effect of the remaining heat upon your box.

The first time this boiler is used it will leak at little at the bottom. Unless you make an expensive box, it may always lose a little steam at the corners. Should this boiler stand out of doors, it should have a shed of boards built over it, since the wind will diminish the effect of your fire, and the frosts of winter injure your wall. By putting two pieces of sheet-iron together a box of twice the above size may be made. A division wall could also be made through the fire-chamber, to support the larger bottom in the center.

A box made as above, costs about two dollars. The mason work almost any farmer may do with his own hands. Such a box will last, it is probable, five or six years, when the sheet-iron will need renewing. Sheet-iron burns out very slowly when in contact with water, and always kept within a boiling heat. If any one can devise another potato boiler of the same capacity, speed of action, and cheapness, and be used with the same small amount of wood, I would like to see it and "own beat." I have seen and used numerous potato boilers, some of them iron kettles set in arches, others small

iron boilers connected with boxes for holding the food to be steamed, but I have seen nothing so cheap and convenient as the foregoing. C. E. GOODRICH. *Utica.*

Steam Plowing.

Mr. H. F. FRENCH has had an opportunity of witnessing several steam plows at work, during the recent exhibition of the Royal Ag. Society of England, and also the operations of a steam digger or grubber in France. As his opinion of these novel implements may be of interest or value to those of our readers who have large prairie farms, or farms otherwise fit for the employment of steam plows thereon, we give the substance of it, and a sketch of the observations on which it appears to have been founded.

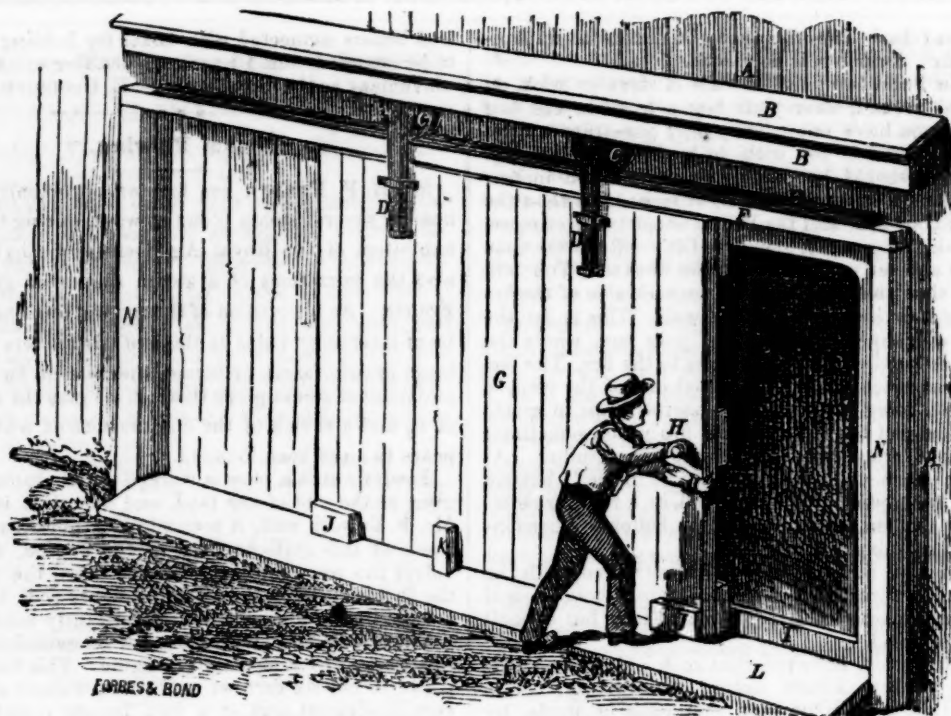
Fowler's steam plow is worked by a stationary engine, at the end of the land, and though it is said by Mr. F. to work well, it seems to him objectionable because of this stationariness of the engine, which involves the use of ropes twice, at least, the length of the furrow. Thus, for a furrow eighty rods in length, a half a mile of rope must be constantly used.

There was only one steam plow on exhibition, which was worked by a locomotive engine. This carried six plows, or cut six furrows as it went, walked about in a very intelligent sort of a way, turned readily at the end of the furrow, and was, in this respect at least, superior to the plows with stationary engines, that it did not require to be drawn about from field to field by horses, and to have tenders with coal and water,—also drawn by horses,—waiting upon it, but was of itself able to march from field to field, drawing its own tender, supplied with coal and water, along with it. It is claimed that the same engine will draw loads of any kind on a road, haul in hay or grain, and do almost all kinds of farm-work as well as horses.

In France, as we have previously stated, Mr. French had an opportunity of witnessing a steam engine "rolling its broad wheels on the ground, like a wagon, and digging or spading the soil as it passed along." His impression, so far as these opportunities for observation seem to warrant, is in favor of a locomotive engine in preference of a stationary one, and of spading instead of plowing, as being a more perfect operation. He is also of the opinion that neither of the machines for plowing seen in England, will accomplish as much work at as small an expense as horses, and that until steam can underbid horse power in cost, the latter will be preferred as more simple and more convenient.

Remedy for Worms on Hop-Vines.

MESSRS. EDITORS—Noticing in the Country Gentleman of the 13th Aug., an inquiry into the nature of the various worms which infest the hop-vine, and a remedy for their destruction, I give you an experiment which I tried last spring, and thus far has proved quite effectual. My hop-vines are trained, and run upon lattice work frames from the ground. Last spring, before the vines made their appearance, I prepared a whitewash with a strong decoction of corrosive sublimate, and gave them a thorough washing with the mixture; have examined the vines constantly, and have not been able thus far to discover a single worm. For the last two or three seasons have been very much annoyed with them. My vines appear much more thrifty, and more prolific, and a decided improvement in their appearance. The remedy is so simple and so easily tried, that it is worthy the attention of a trial. I shall continue it from year to year, as long as I meet with the same results. H. A. J. *Cincinnati, O.*



Morse's Patent Self-adjusting Door Hangers.

The above engraving shows a new mode of constructing and hanging doors on barns and out-buildings, for which the patentee claims very great advantages over any mode of hanging doors ever before offered to the public. His advertisement will be found on another page of this paper.

Experiment in Fattening Pigs.

MESSRS. EDITORS—As accurate and carefully conducted experiments in fattening pork, are rare, and as the subject is often discussed among farmers, as to the "profit or loss," of fattening, without coming to any definite conclusion, I am prompted to relate a few facts which came to my observation during the past year, with a view of influencing others to try similar experiments, and communicate the result for the benefit of their brother farmers.

Mr. T. P. LYON, an enterprising farmer of Genoa, Cayuga Co., having nine shoats which he wished to dispose of at three months old, put them into market at six cents per lb., and being offered but five, concluded to try the experiment of fattening, with a view of obtaining what he considered their true value. That there might be no *guess-work* in the matter, each pig was carefully weighed, and their combined weight was 630 lbs.

On the first day of January they were put into a warm pen, and fed scalded meal, three-quarters corn, and one-quarter oats and buckwheat, until the 10th day of April, at which time they had consumed 3,510 lbs. of meal. They were then slaughtered, weighing after being dressed, 1430 lbs., lard 43 lbs. rendered.

Allowing the price Mr. L. was offered at the time he commenced feeding, and the market price for the meal which was \$1.25 per cwt., we find the account to stand thus:

Shoats, 630 lbs. at 5 cts. per lb.,	\$31.50
Meal, 3510 lbs. at \$1.25 per cwt.,	43.87
	\$75.37
Pork sold when dressed, 1430 lbs., at 9 cts.,	\$128.70
Lard sold, 43 lbs., at 12½ cts.,	5.37½
	\$134.37½
Deduct shoats and meal,	75.37
Profit,	\$58.70
A very fair profit for the capital invested.. D. C.	

Experiment with Manure.

MESSRS. EDITORS—I wish to communicate through your paper, the results of an experiment tried by a friend of mine, at my suggestion, three summers ago, upon the raising of corn, with the view of testing the comparative merits of different kinds of manure. I had stated in his presence that human excrement was equal to the best guano, to apply to any crop, on any soil, and in any climate, and that the excrement of any family all saved and properly applied, would produce more grain than the family would need for consumption.

To test the question, he tried the following experiment. He prepared his cornfield all alike, by the use of the plow and harrow. One-third of the field he manured in the hill with human excrement, taken from the vault of the privy. One-third, the same way with guano. The last third, with manure taken from under a shed, with the urine saved with the solid. The absorbents put into the family vault to absorb the urine, and to render the solid more conveniently worked, was swamp muck. Whilst growing, that manured with guano appeared the rankest, and of the darkest color. He accordingly supposed that part of the field would give the greatest yield. But on harvesting the portions separate, he found that that portion manured with human excrement, gave the greatest yield both in the bushels of ears and of actual weight of shelled corn.

The largest corn that I ever saw growing for a small kind of corn, was treated with ashes that had been prepared in the following manner: The ashes were put into barrels as they were taken up through the year. Into those barrels the chambers were emptied from day to day, so that the ashes were kept well saturated with urine until they were used. This compost was applied in the hill at the time of planting, about the same quantity that is generally used of guano. J. L. EDGERTON.

The U. S. Ag. Society's Meeting at Louisville.

The Fifth Exhibition of the United States Agricultural Society was opened at Louisville, Ky., on Monday of last week (Aug. 31.) Although unable to be present as anticipated, we are indebted to correspondents for data from which to furnish the following account of the first three days' proceedings, and another week we shall probably be able to give, together with the conclusion, letters from one or two eye-witnesses, which will enable our readers to form some accurate comparisons between the present show and those that have preceded it.

The Grounds, as it appears, were fitted up with a Manufacturers Tent, Implement and Floral Halls, and the usual Tents of the President and Guests, in addition to the extensive Amphitheatre, belonging to the South Western Association, as well as saloons for ladies, for refreshments, &c. A mile track was also added to meet the usual requirements of the horses. The exhibition was "opened" by an address from President WILDER, who was escorted in procession from the city, and introduced at the amphitheatre to a large assemblage, by GIBSON MALLORY, Esq., President of the S. W. Ag. Association. Mr. W. simply and appropriately welcomed the visitors and referred to the objects of the occasion.

THE FIRST DAY the trials of speed upon the track were the center of interest. In the trial of stallions over five years old, the \$100 Prize was awarded to "Green Mountain Morgan," (J. B. Crippen, Coldwater, Mich.) sired by old Black Hawk at Bridport, Vt.—time, 2:58—and the 2d Premium to "Young Hamiltonian," (J. L. Doty, Vermont.)—time, 3:08—both 7 years old. Four other horses were competing, respectively owned by Messrs. McNairy, Tennessee; Markham, Canada; Frost, Illinois, and Wilson of Ohio. In the ring of Four-year-old Stallions, one of the two competitors was ruled out and the prize went to E. G. Thomas' "Bud Blackhawk." In the ring under four years old, there were three competitors—prizes awarded to Mr. W. J. Bradley, and Dr. Spalding of Kentucky. In the several rings of Mares and Geldings, there were nine competitors, all Kentucky horses with the exception of two, respectively from New-Jersey and Michigan.

THE SECOND DAY cattle were shown, including the classes specified below, on which premiums were awarded as follow:

DURHAM BULLS.

JUDGES.—Samuel Thorne, Washington Hollow, N. Y.; Lewis Sanders, Ky.; Sam'l D. Martin, Winchester, Ky.; Jacob Pierce, South Charleston, O.; Wm. T. Dennis, Richmond, Ind.; Jno. G. Taylor, New Castle, Ky.; Russell W. Morse, Missouri.

Three years and over—1st premium of \$100 to R. A. Alexander, Woodford Co., Ky., Sirius—2d, \$25, R. G. Corwin, Wayne Co., O., Crusader.

Two years and under three—1st, \$50, Chas. T. Garrard, Bourbon Co., Ky.—2d, \$25, to Nelson T. Lee, Boyle Co., Ky.

One year and under two—1st, \$25, R. A. Alexander—2d, \$10, Cragan Johnson, Scott Co., Ky.

DURHAM COWS.

JUDGES.—Lewis G. Morris, Mt. Fordham, N. Y.; Robert W. Scott, Franklin Co., Ky.; Thos. H. Clay, Fayette Co., Ky.; Wm. T. Dennis, Richmond, Ind.; Russell W. Morse, Hannibal, Mo.

Three years and over—1st, \$100, to R. A. Alexander, Forget-me-not—2d, \$25, R. A. Alexander, Dutchess of Athol.

Two years and under three—1st, \$50, George M. Bedford, Bourbon Co., Ky., Iranna—2d, \$25, Col. S. Meredith, Wayne Co., Ind., Maid of Oak Lane.

One year and under two—1st premium, \$25, R. A. Alexander, Mazurka 4th—2d, R. A. Alexander, Mazurka 2d. Under one year—1st, \$25, Col. S. Meredith—2d, \$5, S. Meredith, Dolly Madison.

DEVON BULLS.

JUDGES.—Henry Wager, Rome, N. Y.; C. M. Clark, Springfield, Ohio; Frederick Watts, Carlisle, Pa.; A. J. Anderson, Henderson, Ky.; Benj. Gratz, Lexington, Ky.; John W. Lang, Vassalboro, Maine; Chas. T. Garrard, Bourbon Co., Ky.; W. H. Sotham, Owego, N. Y.

Three years old and over.—1st, \$100, Chas. A. Ely, Ohio, Duke of Devon.—2d, \$50, Paul Wing, Montgomery Co. Ind., Bryan.

Two years and under three.—But one animal was offered, and he was adjudged unworthy the premium.

One year and under two.—1st, Chas. A. Ely, Loraine Co., Ohio, Victory.

Under one year.—1st, Chas. A. Ely, Ohio—2d, Paul Wing, Montgomery Co., Indiana, Archer.

DEVON COWS AND HEIFERS.

JUDGES.—C. M. Clarke, Springfield, Ohio; Benj. Gratz, Lexington, Ky.; W. H. Sotham, Owego, N. Y.; C. T. Garrard, Bourbon Co., Ky.; C. L. Flint, Boston, Mass.; Jno. S. Herr, Jefferson Co., Ky.

Three years and over.—1st, \$100 to C. A. Ely, Ohio, Jenny Lind—2d, \$25, to same, for Victoria.

Two years and under three.—1st, \$50 C. A. Ely, Ohio, Ida.—2d, \$25, to the same, for cow of same name.

Under one year.—1st, \$15, Paul Wing, Montgomery Co., Indiana, Lady Jane.—2d, C. A. Ely, Ohio, Ida 3d.

DEVON HERDS.

JUDGES.—Ben. Gratz, Lexington; C. M. Clark, Springfield, Ohio; C. T. Garrard, Bourbon Co., Ky.; Charles L. Flint, Boston, Mass.; W. H. Sotham, Owego, N. Y.

Best Devon Bull and Four Cows.—1st, \$100, C. A. Ely, Ohio.—2d, Diploma, Paul Wing, Ind.

FAT BULLOCKS.

JUDGES.—R. Mallory, Oldham Co., Ky.; W. Showe, Ind.; J. Johnston, New-York; T. Paxon, Ohio; E. L. Huffman, Louisville; J. Phillips, Mass.

Five years and upwards—1st, Isaac Shelby, Fayette Co.—2d, George Davidson, Wayne Co., Indiana.

Four years old and under five—1st, James Calloway, Henry Co.—2d, Isaac Shelby, Fayette Co.

Three years and under four—1st, Isaac Shelby, Fayette Co.—2d, J. M. Calloway, Henry Co.

FREE MARTINS, FAT HEIFERS, ETC.

Five years and over—1st, Geo. Davidson, Wayne Co., Ky.—2d, W. L. Waddy, Shelby Co.

Four years and under five—1st, W. R. Estille, Fayette Co., Ky.—2d, Isaac Shelby, Lexington, Ky.

Three years and under four—1st, Isaac Shelby, Lexington, Ky.

In the afternoon several rings of draft stallions and mares, and of saddle geldings were displayed, comprising a considerable and excellent turn-out. The Floral Hall was opened although then not quite completed. Its appearance and the character of the Fruits and Flowers shown for number and variety, are highly spoken of. The structures devoted to machines and implements were scenes of busy competition, and the display in these departments is said to have been large and creditable.

THE THIRD DAY, in the morning, further classes of Cattle were shown, also Swine and Sheep. We give the report of the premiums awarded:

HEREFORD BULLS.

JUDGES.—J. M. Brown of Illinois; J. Askew, R. Mallory, Oldham co., Ky.; Col. Jno. Pope, Tenn.; A. Tarleton, Jefferson co., Ky.; J. O'B. Renick, and G. M. Bedford, Bourbon co., Ky.

Three years old and over—1st, to Prince of Wales, John Humphreys, Lorain co., O.—2d, Charles, W. H. Sotham, Owego, N. Y.

Two years and under three—1st, to Fair Boy, of T. Aston, Lorain co., O.

One year and under two—1st, to Ranger, of W. Sotham.

HEREFORD COWS AND HEIFERS.

JUDGES.—As on the previous class.

Three years old and over—1st, to Duchess, of Thomas Aston—2d, to Mayflower to W. H. Sotham.

Two years old and under three—1st, to Princess Royal, of John Humphreys—2d, to Wood Lass, of W. H. Sotham.

One year and under two—1st, to Beauty, of Thos. Aston.

Under one year—1st, to Prudence, W. H. Sotham—2d, to Woodlark, owned by same.

HEREFORD HERD.

One bull and four cows—1st, to W. H. Sotham

AYRSHIRE BULLS.

JUDGES.—R. J. Tarleton, Jefferson co., Ky.; Isaac Askew, Windsor, C. W.; George M. Bedford and J. O'B.

Renick, Bourbon co., Ky.; and Cassius M. Clay, Madison co., Ky.

Over one year—1st, to Home, J. W. Goslee, Jefferson co., Ky.—2d, to R. A. Alexander.

One year and under two—1st, to S. Berryman, Boston, Ky.

AYRSHIRE COWS.

Three years and over—1st, to Queen, of R. A. Alexander—2d, to Arvelve Lass, owned by the same.

Two years and under three—1st and 2d, to R. A. Alexander.

Under one year—1st, to Tunie, and 2d, to Lille, both owned by R. A. Alexander.

AYRSHIRE HERD.

Two bulls and four cows—Premium to R. A. Alexander.

HERD—FAT CATTLE.

Fine fat cattle—1st, to Isaac Shelby, Fayette co., Ky.

SWINE—LARGE BREED.

Boars two years and over—1st, to Suffolk, owned by E. & B. Bassett, Milan, Erie co., O.

Sows two years and over—1st, to Lizzie, owned by J. M. McFerrin, Boyle co., Ky.—2d, to Virginia, owned by Jno. S. Seaton, Jefferson co., Ky.

Sows one year and under—1st, to Princess, owned by Richard Allen, Fayette co., Ky.

Sow and Pigs—1st, to Virginia and two pigs, owned by J. S. Seaton.

SWINE—SMALL BREED.

Boars two years and over—1st, to Richard Allen—2d, to W. W. Young, Jefferson co., Ky.

Pair of Pigs—1st, to E. & B. Bassett.

Sows two years and over—1st, Richard Allen—2d, to Zeb. Ward, Frankfort, Ky.

Sows one year and under two—1st, to Richard Allen—2d, to Zeb. Ward.

SHEEP—COTSWOLD.

Aged Bucks—1st, Monarch, of J. W. Goslee, Jefferson co., Ky.—2d, Success, of Smith Hopkins, Henry co., Ky.

Bucks two years and under three—1st, to R. A. Alexander—2d, to David Ellis, Henry co., Ky.

Ewes over three years—1st, Luke Hopkins, Henry co., Ky.—2d, to Thomas Aston.

Ewes under two years—1st, J. M. Calloway, Smithfield Ky.—2d, J. B. O'Bannon, Jefferson co., Ky.

SHEEP—SOUTHDOWN.

Bucks over three years—1st, to R. A. Alexander—2d, to C. M. Clay, Madison co., Ky.

Bucks two years and under three—1st, to R. A. Alexander—2d, to Towns & Worthon, Loraine co., O.

Ewes two years and over—1st, R. A. Alexander—2d, Towns & Worthon.

Ewes under two years—1st, R. A. Alexander—2d, Towns & Worthon.

SHEEP—SAXON.

Bucks two years and over—1st, Alex. Black, Greencastle, Ind.

Bucks under two years—1st, Alex. Black.

Ewes two years and over—1st, John Herr, Jefferson co., Ky.

NOT CLASSIFIED.

Five Fat Wethers—1st, J. M. Calloway, Smithfield, Ky.

Mixed breeds—1st, to R. W. Scott, for Improved Kentucky; 1st for Long-wool Lambs, to Luke Hopkins, Henry co., Ky., and 2d, to J. M. Calloway, Smithfield, Ky.; 1st for lot of Sheep, to J. D. Olcott, Jackson co., Mich.

The show of Horses for general utility took place in the afternoon, and the display was very good. The premiums, without exception, were taken by Kentucky horses—we are not informed whether there were any others competing. Floral Hall was the center of great attraction, and the Implements on exhibition or trial, were examined by large numbers of spectators.

THE FOURTH DAY was opened by the exhibition of Alderney Cattle and the Poultry, followed by trotting matches, and a general display of horses in the horse ring, embracing all kinds of horses, which excited universal admiration. The prizes on Jersey Cattle, Poultry, Merino Sheep, extra Horses, &c., were declared.

THE FIFTH DAY was marked by the display of blooded stallions, headed by "Wagner," now 26 years old, famous for having beaten the celebrated Gray Eagle,—saddle horses, ponies, and mules, in each class of which there was a grand display, and in neither of which can Kentucky probably be beaten by any other State in the Union. The premiums on these classes, together with those on working oxen, were awarded, as

also those on the Implements and Machines tried at Syracuse, with the exception of Mowers. In relation to these, the President said:

"I regret to state that the committee on mowers have not yet agreed upon the verdict. When they do so, the result will be made known through the public press."

The award on Reapers and Combined Reapers and Mowers, was published in our last No., p. 176. Other awards were made as follows:

To WM. DEERING & Co., Albany, first premium for Stationary and for Portable Parallel Hay Presses—a silver medal and diploma for each.

To H. ROBINSON, Lafayette Square, N. Y., first prize for Grain Cradles—bronze medal.

To FROST, BURKE & Co., Springfield, Vt., first prize for Scythe Snaths—bronze medal.

To JOHN HATCH & COOK, New-York, for superior Hay Rakes—certificate of merit.

Seven of Mr. Richard's Arabian Horses were exhibited, and excited the greatest admiration.

THE SIXTH DAY brought the exhibition to a close, and is said to have been the most brilliant of the whole, and a fitting and triumphant finale to the week. The official report says:

"It was appropriately arranged that the concluding scene of the brilliant and splendid exhibition should be a grand cavalcade of all the premium animals. Every one that had taken a cup during the week was introduced into the arena, and passing around, the large assemblage enjoyed the opportunity of witnessing a spectacle that is rarely vouchsafed. We cannot speak in fitting terms of the beauty and style of these animals. Our vocabulary of adjectives is not sufficient to do justice to their varied and admirable qualities."

The remaining premiums were declared, including those on buggy and draft horses, fruits and flowers, farm and miscellaneous products, agricultural implements, &c. Among these we notice the following:

To RICH'D H. PEASE, Albany, for best Horse Power for railway threshers—silver medal. In connection with this, the Report says:

"At the trial before the Committee, of endless chain horse power and thrashing machines, the Excelsior Machine, manufactured by Richard H. Pease, of Albany, N. Y., came off successful—they having thrashed the 50 sheaves allotted them in five minutes and eight seconds, while the Emery competing machine occupied six minutes in thrashing the same amount, or nearly 20 per cent. longer than the Excelsior. The thrashing was done by the mere weight of the horses, no harness being used."

To WHEELER, MELICK & Co., Albany, for best Thresher and Winnow—diploma.

To HEDGES, FREE & Co., Cincinnati, for best Sorgho mill—silver medal. And a silver medal to the same, for the best "sugar-making apparatus."

Railway Horse Power—Diploma of commendation, R. H. Pease; commendation, Emery Bros., Albany N. Y. After a most careful examination, the committee were unable to discover that either of these machines had any superiority over the other.

The ceremonies of the week were closed by a "grand banquet," which took place at the Galt House on Saturday evening, and in which over three hundred guests participated. Speeches were made by Col. WILDER, President of the Society, Gov. MOREHEAD, and ex-Govs. WICKLIFFE and HELME of Kentucky, Mr. BARRITT of St. Louis, ex-Secretary GUTHRIE, Mr. T. L. DAVIS of Syracuse, Gen. TILGHMAN of Maryland, GIBSON MALLORY, Pres. of the Southwestern Ag. and Mech. Association, Mr. ALLSTON of S. C., and several others; and the whole affair seems to have passed off in a most agreeable and satisfactory manner.

WARTS ON COW'S TEATS.—Will you or any of your contributors state in the "Country Gentleman," a cure for warts on cow's teats? W. A. H.

Notes of a Travelling Farmer—III.

NEAR LOUISVILLE, Ky., Sept. 1, 1857.

MESSRS. TUCKER & SON—My last was from Cincinnati. I left there on the 28th by railroad for Louisville. When going into the cars at Cincinnati I had the good fortune to meet H. P. BYRAM of the Valley Farmer. Although it was our first meeting, we were friends at once, and you may rest assured we had a long talk on all modes of farming, which drew others into the conversation.

The land for some time after leaving Cincinnati, is hilly or bluffs as they call them; still the soil is very rich. Large corn very, and wheat in shock, as usual. Mr. B. pointed out the late residence of the lamented Gen. HARRISON. It is nothing more than a plain farm dwelling, which showed plainly that he was as represented, when elected President of the United States, the Farmer of Great Bend. The trees being in full foliage prevented me from seeing his grave, which is on the top of a small bluff or natural mound a little south of the dwelling. This I regretted very much. After passing that memorable place, we crossed the Miami. The appearance of those river flats far surpassed Niagara Falls to my view. The corn is immense. Although we were on what we thought the slowest of the slow trains, I wished when passing Great Bend and the Miami, that they had been *slower by far*. After passing the Miami we came into Indiana, and travelled some 100 miles through that State to Jeffersonville, opposite Louisville; and the contrast between that part of Indiana and Ohio that I had passed through was very great. The people through that part of Indiana seem to be miserably poor, and what is worse, they must be miserably indolent; in fact the country for that 100 miles looks the most like starvation I ever saw, although my friend Mr. B. says he never saw it look as well as it does this season—says he has not passed through it for the last ten years, and that he wondered if Scotch Johnston could drain and improve the country there. I have no doubt but there is some very good land; the timber at least denotes the best of wheat land in many places; but they seem to raise almost nothing, and what they do raise, they don't take care of. A good deal of small wheat shocks standing in fields, weather beaten until they are black. Oh, miserable people! Here and there you can see a few wheat stacks, and I noticed two stacks built and thatched Scotch fashion, and think some Scotchman has got in among these apparently poverty stricken people. I am sure they could do better if they would try.

We crossed the Ohio river in a steamboat from Jeffersonville to Louisville, which is a fine city—some say about 60,000 inhabitants. There undoubtedly will be more than that when the great fair commences; but it don't look like a city of over 40,000 to me. Some of their hotels are splendid. The Louisville hotel, I am told, rents for \$14,000 a year. I think it the best I ever was in. Land sells, two miles from the city, for two to three hundred dollars per acre. Some farmers, two miles from the city, own from 500 to 800 acres, two of whom have already called on me, and kindly invited me to visit them, which I intend to do. I have seen your friend Mr. O'BANNON, who kindly invited me to go out with him 14 miles by railroad, but I had made arrangements to go with a countryman of my own for a time; but I shall visit Mr. O'B. before I return. We were only acquainted before by letter, but I find him one of those farmers that *suit* me, and I shall spend a day with him.

The fair will commence to-day with horses, and tomorrow I expect to see the Durhams in *full* show.

It is very surprising to me to see such rich farmers through southern Ohio and in this State, do their farming in so slovenly and unprofitable a manner. Nothing is done right but the corn, and that grows so large that no weeds can live among it; but I see many mowing a tremendous crop of weeds off their potato ground before they can dig their potatoes. In talking with a farmer on the subject, I said I wondered they were not ashamed of such culture. He said, how could they help it, when these weeds grew up after the potatoes were laid by,—that is after they had quit cultivating. I told him they ought not to be laid past so soon. None of them have houses for hay or grain, no shelter for stock, except for horses and mules that they work; and I have seen no stalls in stables, and would you believe it, very few clean out their stables over once in six months, if they can get in and out for so long. Still the farmers are wealthy. They cultivate 20 acres of corn at as little expense as we in New-York State can cultivate 3 or 4 acres, and everything grows abundantly with little cultivation, and the weeds best of all. I never saw such corn and weeds, but no Canada thistles.

Friday, 4th Sept.—The great fair is drawing to a close, and I think it may be safely said that it is a decided failure as far as stock, grain, &c., is concerned, and I think shows that the people do not approve of a U. S. Ag. Society. The show of Durham cattle was few in number, but the quality was superior to anything of the kind I ever saw. They were all huge fat bulls, cows and heifers, by far too much so in my opinion; and the fat bullocks and heifers I question if they were ever equalled in any country. The fat stock of Durhams I think did not amount to over 20; although one of the judges, I did not keep account of the number. There was only 6 bulls three years old, 2 two years, 6 one year old, and about the same number of cows and heifers for breeding purposes. There were some eight or ten Ayrshires, very fine; the Alderneys I did not see; the Devons and Herefords were also a meagre show, and a part of them in as bad condition as they possibly could be; in fact they were poorer than almost any cattle you can see running on the public highway; not all of them, but a part were a disgrace to any show; yet they almost all got premiums because there was no competition. The horses were an excellent show, very fine indeed. There were few sheep, but in general excellent,—Leicesters, Cotswolds and South-Downs, as fine and fat as they could be made. There were some good Merinos, both French and Spanish. The swine were of all sorts and sizes, from the fine delicate little Suffolk to the mammoth Kentuckian, one of which might make a tierce of side pork.

The fair grounds contain 54 acres—39 acres first bought cost \$18,000. There is an amphitheater erected, which I am told seats 9,000 people. It was densely filled every day, and held nearly all the people on the grounds.

The stock are shown inside, (swine and sheep excepted.) There is a stand for the judges in the center, and a stand above the judges for a band of music, which was constantly in attendance, at times enlivening the scene. A large building outside the amphitheater, called Floral Hall, filled with grain, roots, fruits, seeds, flowers, &c. The show of fruits was very fine, but there was only three competitors for winter white wheat; it was excellent. One barrel red wheat, two of barley very good, two of rye and four of corn very fine, one of oats, also good—the roots were also a small show. Mr. PRINCE was there with six Chinese potatoes; they looked very much like *snakes* in shape.

No liquor was allowed to be sold on or around the fair grounds; consequently there was no drunken people. Indeed everything was conducted in the best possible manner. The worthy President was constantly in attendance; but my impression is, the United States Agricultural Society may be abandoned for any good it will ever do. a.

Ice Houses, Wheat, Sorghum, &c.

MESSRS. EDS.—ZERO, in the Co. Gent. of 10th inst., tells us how he built an ice house *underground*. His may be a very good way to keep ice. The *Rural New-Yorker* of 5th inst. has a plate, giving a "bird's eye view" of L. F. Allen's ice house *above ground*. This, doubtless, is a very good one, and quite an ornament to the farm buildings, but the expense of fitting up one like Zero's or Mr. Allen's, is much greater than there is any need of, and they cost more than most farmers would be willing to expend for such a purpose, when a much cheaper one will answer.

I built one, winter before last; when completed and filled with ice the whole cost did not amount to over seven dollars. The ice kept as well, and cooled our water, cream, butter, &c., just as effectually as if the concern had cost me fifty or an hundred dollars. Now what I did in this matter every farmer can also do. But some may ask how the thing was done so cheaply. I had at the east end of one of my barns, a shed, 10 by 30 feet. With cheap joist and shaky hemlock boards, I built a room (or box) in the north end of the shed; this was eight feet square inside, leaving a space of about one foot between the barn and the north and east sides of the shed. On the south side of the room put up two rows of joists, about ten inches distant from outside to outside; boarded it out and inside; then filled all the space around the room with wet hemlock tan; laid down a loose plank floor, and over this a few inches of straw. Sawed the ice in strips 18 inches wide, seven feet long; the ice (not frozen snow) was about 9 inches thick. In less than an hour and a half from the time I started the saws, (there being three of us,) cut enough to fill my ice house. Packed the strips "across and athwart;" this left a vacancy between the sides of the room and the ice, of six inches; this was filled with saw-dust, and about 12 inches of saw-dust spread over the top. Last winter cut the ice when from four to six inches thick; instead of packing in long strips, cut it in squares of about 20 inches. Ice of six to ten inches thick is easier sawed, handled, packed, and keeps as well as if two feet thick. I have made as free use of ice, from the first warm weather down to this 12th day of September, as if I had 20 tons. I think there is yet enough in store to last till the "new crop comes." I think any family that has enjoyed the luxury of ice one summer, would be very unwilling to dispense with it afterwards; and from the facts above given, it will be seen there is no witchery, patent right, or great expense in storing up a full supply of ice for family use, and some to spare.

TURKISH FLINT WHEAT.

Mr. Winspear of Ohio, in Co. Gent. of 10th instant, inquires about the above named wheat. In September, 1855, sowed a package or two of it—mostly winter killed—harvested a little more than the seed sown—this was sown in Sept., 1856. It looked well up to the falling of snow; that went off early in February, and every plant was winter killed, while the white (N. Y.) Flint Wheat, sown by the side of it escaped entirely. During the past two seasons, have experimented with five kinds of imported winter wheat, received from Patent Office—none of them are comparable to the N. Y. Flint. I trust, however, these new varieties have done better farther south, as some of the samples were very fine. Among the lot, was one variety (from Japan,) with a very red chaff, short head and straw, that comes into blossom some ten days earlier than any other kind I have grown, but it has been mostly winter killed the two past winters. If it were hardy and productive, (and it may prove so further south,) it would be an invaluable variety for cultivation in those sections of the country where the midge prevails—from its earliness it would escape their ravages.

SEED WHEAT.

In the same paper, (10th inst.) Mr. Missemmer of Penn., inquires for "beardless White Seed Wheat," raised in the latitude of Albany, or farther north. I would just say to Mr. M., that for several years past the N. Y. White Flint, a beardless variety of wheat, has been successfully grown in this vicinity, and I doubt very much if there is any better variety for this latitude. Where sown in season, on well prepared and suitable soil, it has stood the winter well; got ahead of the midge, escaped rust, been productive, making extra flour, and A. 1. bread. Mr. M. can probably obtain this variety of pure wheat of the seedsmen at Albany or Rochester, N. Y.

DETERIORATION OF THE WHEAT CROP—ONE CAUSE.

I beg all wheat growers that have the Co. Gent. of the 20th of August, to carefully read over the article under the above caption, by *Observer*. Seed wheat rubbed out by hand, would doubtless be better than that threshed by the flail, and that threshed by the flail far preferable to that threshed in machines. "Many good wheat growers thresh all their seed wheat with a flail, to avoid crushing the kernels by using a threshing machine, which often cracks and bruises at least a tenth part of the very best kernels," so says the Sept. number of the American Agriculturist. The drier the grain when threshed in the machine, more of the large kernels are broken, and many that appear perfect have lost their chits or germs. Before the introduction of threshers into this section of the country, one and a half bushel of seed wheat was generally used per acre; now two bushels are found little enough for an acre, and frequently then the crop is too thin.

Being at a grist mill a few days since, I noticed a half bushel measure under the discharging spout of the smut mill. The wheat as it came from the smut mill, passed over a fine wire sieve placed in the discharging spout, so that the very smallest kernels, with the chits or germs of the wheat whipped off, in passing through the smut mill fell into the half bushel. The miller informed me that he annually obtained several bushels of these germs, and fed to his hens, &c. With this I forward you a sample of the germs. With a microscope you will readily see that a very large portion of the wheat after having passed through the smut mill would never vegetate. The same, though probably in a much less degree, takes place in threshing wheat by a swiftly revolving and powerful thresher.

"Like produces its like," is a truism generally acceded to. If the farmer sows large, plump, unmutated wheat, he will be pretty certain to obtain strong, healthy plants; while if he sows puny, mutilated seeds, if it germinates it will most probably produce feeble, unproductive plants. "As ye sow, so shall ye reap."

I suppose the germs are richer in the phosphates than any other portion of the grain—'tis so with the chits of Indian corn. By the loss of the germs of the wheat, is not the nutritive qualities of the flour deteriorated? Will Prof. S. W. Johnson enlighten us upon this subject?

In conclusion, I would say to those wheat growers who "go in" for improvement, thresh your seed wheat with the flail; with a suitable sieve sift out the small and blighted kernels; sow only large, plump seed. Follow this course for a few years, and with good culture, I trust you will have no cause to complain of the deterioration of your wheat.

CHINESE SUGAR CANE IN HIGH LATITUDES.

In your last issue, Prof. Johnson gives us the results of some experiments in north Germany, on the feeding value of the cane compared with Indian corn. There the cane only produced per acre about one-third as much green fodder as corn. If the same relative proportions held good here, I think the corn must yield over sixty tons per acre. I have recently seen several patches, standing from nine to twelve feet high—hills from two to two and a half feet apart—six or eight of these tall stalks in each hill—some of the pieces have

been headed ten days or more. Several persons judge there is at the rate of more than twenty tons of green fodder per acre. One of your subscribers here (G. S.) has several pieces. He also has a patch of southern corn planted in drills for fodder. He is of the opinion that, *rod for rod*, the cane will yield the greatest weight of green food. Of its feeding qualities, and of its value as a sugar and molasses plant, it is now useless to judge; a few weeks will throw some light upon these questions. One thing is certain, the cane will better stand the frost than Indian corn. L. B. Warner, N. H.

Selecting Seed Corn—Timely Hint.

Farmers will remember that for two or three years past, a great deal of corn came up badly. Last spring, especially, much of it "rotted" in the ground. The loss from this cause is hundreds of thousands the present season. On our own ground (with some 14 acres in corn) the loss was next to nothing. The same is true of some others we could name. What is the reason of the difference? Why does the seed in one field grow, and in another rot? That is just what we wish to come at.

One great cause of the rotting of seed, is that it was never well ripened. Another reason is that it is badly dried. Poorly ripened and badly dried seed is very easily injured by fermentation, and a very little fermentation and moulding will destroy vitality. Last autumn, we had the best, largest, and ripest ears carefully selected, and braided together by the husks in tresses, and hung in a dry place. This was planted, and notwithstanding the drenching rains and mud, all came up,—not a missing hill or stalk,—and the field is noted as one of the best in the country. The same has been the experience of some others. Those who made no selection and took no care of their seed, have had "very bad luck." Another field was planted with King Philip corn, not trussed; but as this sort ripens so early and perfectly, this operation appears not necessary. It came up as evenly as the other.

Let farmers select their best and ripest ears, and either truss and hang them up, or place them, in the ear, where they will dry thoroughly, (unless it be some very early, quickly ripening sorts,) and there will be better success and better luck with the corn crop.

Sweeney—its Cause and Cure.

This term is not in the dictionary, and probably in no work on farriery, either English or American. The reason may be that no such disease existed; it being the effect of a cause,—as an affection at the armpit is sometimes caused by an injured hand. The cause of the so-called Sweeney is produced by hard driving, or a slight founder, or by a want of growth in the outer rim of the hoof corresponding to that within.

Remedy.—Pare the sole of the foot thin, especially next to the frog. Prepare a shoe for that purpose, and when well set, spread the heel one-fourth of an inch. Repeat the spreading at the end of a week, and again, if the hoof and shoe will admit, when it must be re-set. Keep the sole and side of the hoof moistened with any penetrating animal oil, or with fresh cow dung applied twice a day. Relief will follow, and in most cases in a few weeks the lameness and sweeney will disappear.

If the case be too stubborn for these appliances, shear off the hair above the hoof for the space of an inch and a half; wash it clean, and spread on a blister salve—not letting it touch the heel. Bathe it in mod-

erately, by holding a heated iron near it, and smooth it off with your spreading knife in the direction you wish the hair to grow. Tie the horse to the rack for twenty-four hours, so that he cannot reach the plaster with his teeth, and in a few weeks a new and enlarged edition of hoof will be seen protruding. This process may need repeating after four weeks. Wm. T. Hamilton, Jonesville, N. Y.

Cure for Colic in Horses.

I am moved by the advantages I have derived from the pages of the Co. Gent., to relate a case and cure of the colic in a horse, for the benefit of others. My horse had been plowing and perspired freely, when the plowman being called off for a few minutes, tied him to a fence at the headland. A brisk wind was blowing, and the horse soon exhibited signs of uneasiness, by shifting his position, raising his hind legs suddenly, pawing, &c. As soon as he entered his stall he threw himself violently down, and manifested all the symptoms of a severe colic. I gave him a dose of ginger, whiskey, oil, laudanum, spirits turpentine, altogether a pint, but it had not the desired effect. I then had him trotted up and down the road, briskly rubbed under the belly by two men, and thus worked with him for hours, and thought it all of no avail, when at one o'clock, A. M., I determined if there was virtue in drugs, to give him a kill or cure dose. Accordingly, I doubled the quantities of the laudanum, turpentine and ginger, poured them down his throat and left him to the care of the men. To my surprise, in the morning I found him alive and apparently over the attack, but very weak.

I determined then to send to the city for our best veterinary surgeon, who gave me the following recipe as a cure for colic, as I deemed my rashness of the preceding night too great to pursue for the future, when a valuable animal is the subject.

CURE FOR COLIC.

3 ounces spirits of turpentine,
1 oz. tincture of opium.

If relief is not obtained in one hour, repeat the dose with one ounce of best powdered aloes well dissolved together.

I feel it a duty to communicate any information that may possibly benefit your readers, from whom I have derived much. W. Baltimore, Md.

Washing and Sewing Machines.

MESSRS. EDITORS—A subscriber some months since inquired about washing machines. A great variety have been made and sold, but I believe but one kind is now made to any extent, the other kinds not meeting the wants of community. The kind I allude to is "the Metropolitan Washing Machine," extensively sold in some parts of Massachusetts, Vermont and New Hampshire, and I believe is giving universal satisfaction. It is simple, durable, and not likely to get out of order. It does not injure the clothes nor break buttons.

Two months use in a large family satisfies me and all the members of our household, that it really saves more than one-half the work in ordinary washing—many say it saves three-fourths.

Now, Messrs. Editors, please tell us where we can get the best Sewing Machine—for while our sowing, mowing, reaping, pitching, threshing, ditching and cutting our fodder is done by machinery, it will not do for our wives to wear themselves out over the wash-board and the needle. D. LYMAN. Middlefield, Ct.

EARLY FROST.—Quite a severe frost occurred on the night of the 8th inst., in this vicinity, and through a considerable portion of New-England. But little injury was, however, done to the crops, except on low lands.

Inquiries and Answers.

INJURY TO CARROTS.—I have a bed of carrots that was planted this spring, which came up vigorously, and after two or three thinnings seemed to droop—the tops turn yellow, and dry up brown as a crisp. But I would mention that in strewing some salt over the land near by, I accidentally got some of it over the tops. Do you attribute their decay to this, and will they revive again? Or is it owing to the extreme heat of the weather? Please give me the cause and oblige. R. H. *New-York, August, 1857.* [We are unable to assign the cause of the failure of the crop, from so limited a knowledge of all the circumstances. We have never known carrots injured by a hot sun, when the soil was deep and rich. A small accidentally scattered portion of salt would probably be insufficient to produce the stated result.]

SUFFOLK PIGS.—J. B. K., *Nashville, Tenn.* We are unable to furnish the information you desire about the shipment of pigs to your place, and would advise you to address GEO. WILKES & Co., Editors Porter's Spirit of the Times, New-York, who make the purchase and shipment of stock a part of their business, and who will be able to answer your inquiries satisfactorily.

SWENEY.—Will you please inform me through your invaluable paper, if the disease which your correspondent calls "Sweney," and gives a cure for, is in the shoulder of the horse, caused by strains of the muscles of the lower bone of the shoulder, as I have a very good horse which is quite lame in the shoulder from a strain, and I should apply his remedy, but not knowing whether my case was the same or not, I therefore must trouble you or your correspondent to enlighten me on the matter. By so doing, you will much oblige A SUBSCRIBER. *Toledo, O.*

MILLS FOR CHINESE SUGAR CANE, &c.—Will you or some of your readers, inform us what sort of mills are best adapted for the extraction of the sap of the Chinese sugar cane, on a small scale? If they are in market, where and at what price, and whether the sap should be boiled in iron, copper, or brass kettles? Also, the proper stage of the plant in its growth when it should be done, and any other information that may be necessary to the inexperienced in the matter. Please reply in next No. N. J. *North Lyme, Ct.* [Answers to the above will be valuable to many of our readers, and we hope some of our correspondents may be able to furnish the desired information.]

INQUIRY.—If you or some of your readers will tell me what to do for a fine young mare, it will oblige me and may also some others. My mare, three years old last spring, has something grows out at the heel of one of her hind feet—it looks like the frog of the foot, and reaches near a third up the pastern—grows sometimes to an inch and a half or two inches in length—hurts her but little—occasionally gets sore and comes off with some bleeding. I would be much pleased to get it cured. G. W. Y. *Rocky River, Tenn.*

POTATO BUGS.—Can you or any of your subscribers, tell me how to get rid of the "Potato Bug?" Most every body knows what the potato bug is, but nobody in this country knows how to kill them. R. *Prairie Farm, Tenn.*

MR. JOHNSTON'S FARMING.—It is with much pleasure and profit I read your valuable paper from week to week, and I have been especially interested in Mr. JOHN JOHNSTON's correspondence, and your Notes of his Farm and Farming; and it would be a favor to me, and doubtless to many others, if Mr. Johnston would give us through your paper, the cost of carrying on his farm, and the receipts of the same in items for one year. It is often said that book farming will not pay, and I should judge that Mr. Johnston is really what I

should call a "Book farming" man—one that intends to make his business pay, or if you please a systematic farmer. If farming cannot be made to pay, carried on systematically, I would advise all to quit the business. N. H. NOYES. *Otisico, N. Y.*

MR. JOHNSTON is emphatically a "common sense farmer." He seeks all the information he can obtain, whether from books, papers or observation, and is thus enabled to decide intelligently as to the best course for him to pursue. The result is, so far as the profits of farming are concerned, entirely satisfactory to himself, and would be, we are confident from what we have seen of his figures, to the public, were we at liberty to furnish the statement our correspondent desires. Mr. J. does not boast of his profits, but he has sought by his frequent communications to the agricultural papers, to show those farmers who complain that farming is unprofitable, "a more excellent way"—a way in which he has brought a worn-out farm into the highest state of fertility, and that too, without any foreign capital, the products of the farm having not only paid for all improvements, but enabled him to lay aside a handsome yearly per centage on the money and labor invested.

"GARBINZOS."—Tell your correspondent I "spec" he is humbugged with this would-be-something-great plant. I acknowledge that I was. I received some of the seed from the Patent Office, as something new under the sun. "Excellent food for both man and beast." Well, I took pains in preparing the soil to test it; and the result is three or four little vines, somewhat resembling the common pea vine, without pods or fruit of any kind. R. *Prairie Farm, Tenn.*

PASTURE LOT—INFORMATION WANTED.—I have four acres of woodland, pretty well thinned out—soil rather poor, and abounding in small flint stones—that I desire to convert into a pasture lot for two or three cows. A few years ago orchard grass was sown, but it is now run out. As the soil is so thin and poor, I am at a loss to know whether I had better plow the surface lightly this winter, and next spring give it a moderate dressing of unleached ashes, or bone dust, to be harrowed in with clover and orchard grass seeds, or whether to top dress it with the ashes or bone dust, during next winter, and in the spring to harrow it thoroughly after sowing the seed on the turf (such as it is.) Could you not induce some of those agricultural giants, Messrs. JOHNSTON, DICKINSON, or others of your experienced contributors, to give a new beginner the benefit of their judgment and experience in such a case? I would be grateful for it. W. *Baltimore, Md.*

ASPECTS OF ORCHARDS.—Will you please give me your experience in regard to situation for orchards—whether a southern or northern aspect be preferable, and if sheltered by growth of trees, on which side or sides of the four points of the compass would you recommend such shelter to be. A. C. H. *Freeport, Ill.*

This is a matter requiring some experience and judgment. A certain degree of exposure to the weather is required for the proper maturity and hardening of the wood of fruit trees. Warm, sheltered valleys, with rich soil, promote rapid growth during summer, and continue it so late in autumn that the intense frosts of winter to which such valleys are especially liable, soon destroy the succulent and half hardy shoots. On the contrary, an exposed hill retards the rapidity of growth, and hastens the maturity of the young wood; while the less intense cold of such situations, in consequence of the freer circulation of air, is additionally favorable.

But too much exposure to winds is also fatal. We have known some of the hardiest trees destroyed by being planted in a strong sweep of the cold wintry weather, while others, in sheltered localities, but equally subjected to low temperature, entirely escaped. Hence it is important to guard against extremes. On

the whole, and at the locality of our correspondent, we should prefer an elevated and northern to a southern aspect, the soil being equally favorable, and the sweep of cold winds being in a great measure cut off by the shelter of forest trees at a proper distance or by artificially planted belts.

CLOVER SEED HARVESTER.—I have been told that there is a machine used in the western part of the State, for gathering the ripe heads of clover, by merely scraping them off, and leaving the stems, thereby saving the labor of cutting, curing, and threshing seed clover. If you will have the kindness to inform me through the "Country Gentleman," where I can procure such a machine, with the probable cost, you will greatly oblige me. A SUBSCRIBER. *Aurietville, N. Y.* [There is a machine for this purpose, called "Wagener's Clover Header," but where it is manufactured or where it can be procured, we are unable to say. For description of it, see Co. Gent. vol. iv., p. 135, or Cult. for 1854, p. 305.]

PACKING BUTTER.—Will you do me the favor of inquiring through the Country Gentleman, the best manner for packing butter for winter use. I use a cellar dairy, and pack during the summer about as much butter as I require for winter use. It does not turn rancid, but never keeps as sweet and nice as some butter packed by those more conversant with it. I shall be infinitely obliged for some information on this point. D. B. W. *Baltimore, Md.*

TURNIPS AND RADISHES.—Will the Country Gent. inform me why turnips and radishes sometimes grow all tops, and form scarcely any roots of a good size? And also if there is any way of preventing it? I have a quantity of both which I am afraid will be good for nothing.

APPLE STOCKS.—What are the Paradise and Doucain stocks for dwarf apple? L. H. *Ogdensburg.*

[Turnips and radishes grow sometimes imperfectly, and probably from bad seed selected from the growth of poor specimens. There may be other auxiliary causes. Will some of our practical gardeners give their experience?]

The Paradise apple is a small species, growing three or four feet high, and when common varieties are budded or grafted on it, they are reduced in size but little greater than currant bushes. The Doucain is a large species, in size between the Paradise and common apple, and forms larger dwarfs.]

KEEPING CIDER SWEET.—Will you be kind enough, through the columns of the Cultivator, to inform me and some of your other subscribers, how to keep new cider sweet, for months after it is made, as I am informed it can be done; also, how to make cider like champagne wine. JOSEPH LINDSEY. *Philadelphia, 8 mo. 28th.* [It is kept sweet by boiling before it commences fermentation—the common practice being to boil it down to one half its first bulk, or less—but we have known it to keep sweet a year, after reducing it only one-third. The second inquiry we cannot answer.]

MICHIGAN AG. COLLEGE.—Will you please to give me the address of the State Agricultural College of Michigan? I have seen notices of it in your paper, and I have no other way to get a prospectus or a catalogue than by writing you. PATER. [Address R. D. WEEKS Secretary, Lansing, Mich.]

OUTLET FOR DRAINING.—In draining with tile, how is the outlet of the ditch secured? Is the tile carried out, or is there broken stone put between the end of the tile and outlet? G. P. *Sykesville, Md.* [If the ditch discharges from the side of a steep bank, and is not in danger of being obstructed by the tread of animals, the water may discharge from the tile itself.

But if the tile is of such a nature as to crumble from frost, and the above named requisites cannot be secured, the end of the ditch should be filled with small or broken stone, through which the water may escape.]

FLEAS.—I wish to know what means will enable me to get rid of fleas. Is there any thing that could be put into a bed, or wherever they may be, which would be effective in driving them off? A satisfactory answer to this will be a favor to more than one of the afflicted of your readers. J. E. W. *New Ross, Ind.* [We do not know any remedy for fleas except killing them. We have indeed heard of the Frenchman's remedy of choking them with brick-dust,—

"First den, you catch de flea.

Den put some little powder down he trout," &c.;

but really, we have no great confidence in the practicability of this method. We must apply to our correspondents.]

TO DESTROY BRAKES.—I see in the last Cultivator, an inquiry, how to kill brakes in a pasture that cannot be plowed. I would say, mow them as soon as they are large enough, say in June, and keep them down by mowing, and there will be but few the second year if any; in a hard case, it may take two years, but in my case it has killed them when it has been faithfully done. ROBERT HOLMES. *Johnson, Vt.*

DISEASE IN APPLE TREE BARK.—Quite a number of my father's apple trees have been attacked by a strange disease, which commences on the bark of the stem of the tree by a small circular spot, becoming brown and drying. In a short time after, quite a number of spots of the same kind will be seen. These spots continue to increase in size and number until a large portion of the bark is dead. Any information as to the cause and cure of this strange disease will be thankfully received by me through the Cultivator. D. M. N. *Lewisburg, Pa.* [The insertion of the above has been accidentally delayed—can some of our correspondents throw any light on the subject.]

CANADA CLUB WHEAT.—Permit me to inquire through you, for a description of Canada Club Wheat. Is it bearded or not? Is it red or white chaff? Is it liable to smut or rust? What kind of grain has it—is it flinty or like white winter wheat.

CORN CUTTER.—If any one is acquainted with a practical corn cutter that is worked by horse power, I would like to know where they can be had, the price, &c. A. C. ADKINS. *Plymouth, Ill.*

WOLF TEETH.—I wish to know what difference there is, if there is any, between wolf teeth and blind teeth in horses, and the effect which each of them has on the usefulness of the animal. J. E. W. [The same teeth are referred to under both names. The effect they are supposed to have in producing blindness, has been frequently referred to in this paper.]

POTATO BUGS.—Your correspondent "R." is informed that threshing "potato bugs" has had the desired effect—not to kill them, but to make them "leave for parts unknown." W. *Galesburg, Ill.*

DRAINING TILES.—I wish to get information through the Country Gentleman, in regard to tile for drain. Which is the best, the sole tile or the horse shoe tile, and whether or no the horse shoe tile is apt to fill up and obstruct the drain. Will some one who has had experience in tile draining answer the above, and oblige a SUBSCRIBER.

PRUNING THE LARCH, &c.—Can you tell me the best time to prune the Larch, to give it a conical form? both European and American? also American Arborvitæ? J. T. LITTLE. *Dixon, Ill.* [In the spring, at the commencement of growth.]

THE FAIR OF THE ALBANY CO. AG. SOCIETY—Was held in this city last week according to notice, and but for unpleasant weather on the last day, would probably have surpassed, in respect to pecuniary success, any of its predecessors. The receipts up to Wednesday night were far in advance of the same time last year; those of Thursday, however, were cut down so much by nearly incessant rains, that the total is somewhat less. In Fruits and Flowers the show was a remarkably fine one. The turn out of stock was very good,—both of Horses, Cattle and Sheep, while the Pigs were particularly excellent. There was a large display of Poultry, a fair exhibition of Implements and Machines, while Domestic and other Manufactures, articles for the table and household use, &c., &c., included an extensive and showy variety.

The city papers have already given so full lists of entries, premiums, &c., that with the limited space at our command, we feel unable to notice this exhibition at as much length as otherwise would have been expected in our columns. Among the prize-takers in different classes of Horses, we notice the names of E. A. Fitch, New-Scotland, Barent Mynderse, Guiderland, Vischer Lansing, Watervliet, John Appleton, Albany, J. H. Booth, Bethlehem, A. Fitch, New-Scotland, H. Yates and E. Frisby, Albany, John Chadwick, J. J. Callanan, J. W. Jolly, De Witt Phillips, W. J. Snyder, W. W. Thompson, C. V. Truax, J. Wetherwax, and others.

Among successful competitors in the Durham classes, were Henry Sherman, Albany, W. M. Bullock and G. H. Seeley, Bethlehem, and Wm. Janes of Albany. W. M. Bullock, E. Corning, Jr., and D. Callanan of New Scotland were awarded prizes on Herefords. President Hilton, Peter McHarg, Peter Weeden, John Witbeck, J. Wilkinson, and Joseph Haswell were prominent among Devon exhibitors.

Among the largest and best exhibitors of sheep and swine, were John H. Booth, Henry Bailey, E. Corning, Jr., Sanford Cook, J. W. Jolley, Wm. Janes, Jas. Maher, Jas. L. Mitchell, Jacob Ten Eyck, P. P. Vail, Jurian Winne, P. Weeden, &c. The largest and best exhibitions of Poultry were made by John Anderson, H. Bugden, B. Gibson, W. R. Hills, J. V. A. Lansing, John McBain, W. H. Richardson, Wm. Richardson, G. E. Rice, J. N. Seelye, Peter Van Wie, and E. A. Wendell.

Great credit is due to John Wilson for his fine display of Flowers, Plants, Fruit, Bouquets, &c. Among other exhibitors in these departments we should not fail to notice G. Decker, Geo. Becker, E. Corning, Jr., E. Dorr, S. W. Gibbs, W. Hurst, A. Menand, J. L. Mitchell, Dr. A. March, J. B. Radley, Wm. Richardson, Peter Van Wie, M. E. Viele, H. Visscher, Saml. Warren, M. A. Wands, R. P. Wiles, &c. Collections of Vegetables, more or less extensive, were contributed by E. Corning, Jr., J. Hills, N. Hussey, J. M. Houghtaling, W. Janes, Wm. Moore, J. S. Slingerland, J. Simmons, Z. M. Sanders, S. V. Thornton, P. P. Vail, &c.

Beautiful Working Oxen were those of W. H. Slingerland, of Bethlehem, John D. Johnson, of New-Scotland, and the prize pair last year belonging to President Hilton. The Steers of D. Callanan and F. Moak, of New-Scotland, J. L. Ten Eyck, J. H. Booth, and D. Onderdonk, of Bethlehem, and P. Worden, of Rensselaerville, were deservedly admired. But one of the prettiest sights on the grounds were the matched calves of

John McHarg of Bethlehem, and John Witbeck of New-Scotland, with their young but well-drilled drivers.

The thanks of the Society are due to the enterprising merchants and manufacturers of the city, for their generous aid in the way of contributions to the display. Many of them will have its Diploma as an enduring memento of their success, and a recommendation of their wares or inventions to public patronage. Among manufactures of particular Agricultural interest, were the large collection of Implements shown by R. H. Pease, a Corn Sheller, by Cassidy & Chism, Mowing Machines by Hallenbeck & Cunningham, Farm Wagons by M. Hallenbeck and J. W. Jolly, Market Wagons by Lyon & Chandler, and O. H. Osborne, Drain Tile by C. & W. M'Cammon, Geo. Alderson and John Appleton, the Hot-House Boiler of S. T. Savage, and a variety of Implements, &c., by D. W. Seelye, and others.

THE HORTICULTURAL SOCIETY OF THE VALLEY OF THE GENESEE holds its fall exhibition at Corinthian Hall in Rochester, on the 1st and 2d days of October next. It is expected to be an interesting exhibition, as unusual efforts are to be made for that purpose.

THE SALE AT "MORETON LODGE."—We learn from PAOLI LATHROP, Esq., of Hadley, Mass., that the sale of F. W. STONE, Esq., of Moreton Lodge, near Guelph, Canada West, was well attended, and that the excellent stock advertised were sold at good prices. Mr. L. was passing through this city Monday, in company with B. EMERSON, Esq., of California, both having in charge several head of cattle purchased of Mr. Stone. Mr. Lathrop's were as follow:

BIANCA, red and white; calved January 25th, 1854, imported 1855, got by Minstrel, (11,818,) dam Bankaia, by Shepherd's Purse (10,804.) Price \$380.

LADY CHESTERFORD, roan; calved 19th April, 1854, imported 1855, got by Earl of Ducie (12,799,) dam, Lady Jane, by Red roan Kirtling, (10,691.) Price \$500.

11TH DUKE OF OXFORD, red; calved 20th February, 1856, got by 6th Duke of Oxford (12,765.) Price \$600.

JOHN BULL, red and white; calved 1st July, 1857, got by John O'Gaunt, 2d, (13,089.) Price \$200.

Mr. Emerson's purchases were:

ROSE OF SUMMER, red; calved April 8, 1857, got by John O'Gaunt 2d, (13,089.) Price \$305.

LADY BOLTON, red and white; calved 16th March, 1856, got by 2d Duke of Bolton, (12,739.) Price \$400.

LADY FARNHAM, roan; calved 27th March, 1857, got by John O'Gaunt, 2d, (13,089.) Price \$200.

GUELPH, a roan bull; calved 3d Nov. 1856. By the same sire. Price \$650.

JOHN OF GUELPH, red and white; calved 23d Feb., 1857. Sired as above. Price \$250.

These animals will be a great acquisition to the stock of California, whither it is their owner's intention to take them at an early day.

We believe the above are the only purchases made to come to the States, with the exception of a bull, "Wall-Flower 7th," purchased for JUSTIN ELY, Esq., of West Springfield, Mass., and the heifer "Peach Bud," the cow "Duchess 3d," and several head of Cotswold Sheep, for S. W. BUFFUM, Esq., of Winchester, N. H.

☞ We have received some specimens of queer looking peas and beans from our friend DENNIS of Applebackville, Pa., the names of which we have not been able to decipher.

BLACK HAWK AND LADY SUFFOLK.—The skins of these distinguished horses have been set up, and will be exhibited by Mr. Charles A. Hill at various Agricultural shows this autumn. They will doubtless attract much attention.

Notes for the Month.

THE HIGHEST BID AT MR. WEBB'S RAM-LETTING.—We are informed that the "Mr. Lindsay of New York," referred to on page 112, Co. Gent., as having paid the highest price at Jonas Webb's South Down ram-letting for the use of a single ram, (£197, or about \$985,) should have been R. LINSLEY, Esq., of West Meriden, Conn. It is also stated that he subsequently purchased this animal for 400 guineas, or \$2,000. It took the second prize at the Royal Agricultural Society's shows, both last year at Chelmsford, and this year at Salisbury. To show that the price paid is not so very extravagant, we may add that the hire of another of Mr. Webb's rams, during the past three years, amounts to nearly as much—it having been bid off in 1855 for 170 guineas, in 1856 for 130, and this year for 70—total 370 guineas. As these are the prices at which the best farmers of England estimate the practical value to themselves, of one year's use of a good male, may not our farmers derive therefrom a lesson of importance—the benefit of securing the services of improved males to raise the character and improve the qualities of their stock—including cattle and swine as well as sheep?

WATER FOR IRRIGATION.—During the recent Salisbury meeting of the Royal Ag. Society, an interesting lecture was delivered on water-meadows, to which we may hereafter refer more at length. In looking it over we notice that the speaker's views coincide with those of A. B. DICKINSON in several respects. Night irrigation, or in shady weather, is better than under a warm sun. Turbid water, which will leave a deposit behind it, is particularly commended. But the quality of the water is especially insisted on. The *purer and softer it is*, the better for irrigation. The water which produced the richest vegetation the speaker had ever seen, on analysis was found to be remarkable in these respects. The temperature of this spring-water, was three degrees lower in May and June than that of river water adjoining, but when both were tried on the same meadow, the latter would not produce half the grass yielded by the other. Moreover much smaller quantities of the spring water could be used with equal advantage.

SELF-ACTING GATE.—A communication from Mr. S. J. SHERWOOD of Wisconsin, dated March 1st, has since been crowded out of our paper from week to week. We should publish it even at this time, but the writer proposes in it to give a fuller description of the self-acting gate he had then successfully employed for a few weeks, with the modifications further experience might suggest; and, now that several months have elapsed, such a communication would probably be of greater interest than the one before us. We should be pleased to receive it. A good Automaton Gate is much needed all over the country, and if our correspondent's invention is superior to others in any respect, it would be of general service to make it more widely known.

CHINESE SUGAR CANE.—Your favor of a small package of Sugar Cane seed was received and planted about the 20th of May. It came up in about 10 days, showing a small yellow stalk, in size and appearance resembling broom corn—grew very slow for four weeks. After the warm weather came it began to go ahead. I have this day (Aug. 15) measured, and find it to be from six to seven feet and ten inches in height, as it stands. Don't know what I shall do with the *stuff*, but think I can supply a Lake George fishing party with about 500 rods, if it continues to go ahead for three weeks to come as it has for the past month. E. S. S. Hartford, N. Y.

ANOTHER SIGHT WORTH SEEING.—Rock County, Wisconsin, is one of the finest, if not the best of all the counties for farming purposes which we visited in our western tour, and we were told that it was consid-

ered the best county in that state. The following from the Chicago Tribune, will afford some idea of the extent to which wheat is grown in that vicinity:—"A friend of ours says that one day last week he went up to the top of a hill called Mt. Zion, six miles from Janesville, Rock county, Wis., and counted on the surrounding plain one hundred and sixty-four horse power reaping machines, busily cutting down wheat. There were one thousand men, women and boys following after, binding and shocking up the golden sheaves. It was a sight worth seeing, to behold the grain falling and being gathered up at the rate of two hundred acres per hour."

SHADE TREES IN PASTURES.—I have a small dairy of eleven cows, cared for by an efficient dairy-maid. The cows have the run of two pastures, one of which is an old pasture, in grass twenty years, with a *plenty of shade* in it, a belt of timber occupying a portion of the lot, and two brooks running through it of cold, sweet soft water. The other is a *new* piece, seeded down two years ago to clover and timothy, with *no shade*, and a scant supply of water, so that the cows go to drink as soon as they are let out at night; yet in this last mentioned pasture the cows give a pail and a half more milk in the twenty-four hours, than in that supplied with *plenty of shade*. Grass in both equally abundant. So much in favor of A. B. DICKINSON's experience. W. M. W. Sweet Briar, Aug., 1857.

MILK SICKNESS.—The S. C. Farmer and Planter copies from the Country Gentleman (vol. viii, p. 300) the article on this subject, written by Dr. ISAAC HUTCHINSON of Evansville, Ia., and remarks—"If the writer of the following article on the cause of this dreadful disease is correct, he is entitled to a large reward which we have understood has been offered for the discovery. We have always suspected it to be something of a very volatile nature, having a strong affinity for water from its being deposited with the dew on grass, &c., and from its absence where no dew is to be found."

OHIO PLOWS.—Mr. JOHN L. GILL, plow manufacturer of Columbus, O., mentioned in the course of a recent call at our office, that he is now making four kinds of each of seven different sizes, and that his sales this spring were in the neighborhood of four thousand plows, while he hopes to get three thousand more ready for the fall trade. His market is mainly in his own state and Kentucky, where implements from his factory are in high repute. As there are eight or nine other large plow makers, if we are not mistaken, in Ohio, it is scarcely necessary to add, that there must be a vast number of furrows turned by the "Buckeyes," and that, too, with new plows, in the course of a twelve-month.

THE HIGHLAND SOCIETY held its Show at Glasgow, eliciting a respectable turn-out, although the occurrence of the Yorkshire meeting the same week kept most English exhibitors at home. In Short-Horns, Mr. Douglas of Athelstaneford was the principal exhibitor, and much credit is given him as a skillful and enterprising breeder. The first prize bull at Salisbury was present, having been purchased from the breeder, Mr. Fawkes, for £200. There were nearly 200 entries of Ayrshires, although this seems not to have been quite as good or large a turn-out as was expected. This breed is shown mainly on its milking qualities (of which this is not so favorable a season to judge,) and it is stated that "while breeders are sacrificing the milking properties of the Short-Horn, the breeders of Ayrshires are pursuing an opposite course, in sacrificing form to the milking properties." There was a fair turn-out of Polled breeds, Angus and Galloway, and of the Highland cattle. The Clydesdale Horses were pretty well represented; other classes, thorough-breds, &c., &c., not so largely or favorably. The Sheep included Leicesters, Blackfaced, Southdown, Cheviot and Cotswolds. The Swine were very good—most prizes

in this department going to English competitors. The Implement department "did not come up to the same standard of excellence as that of the stock."

LABOR-SAVING MACHINES.—A correspondent in southwestern Pennsylvania, writes us as follows:—"The reading of your paper has made me, in the eyes of my brother farmers, a perfect visionary, because it has induced me to use the jointed harrow, the roller, the sub-soil plow, reaper and mower, &c. I first learned about these from your paper, and as they have all proved successful and profitable, I am now about purchasing a two-horse power threshing machine, which I trust I shall find equally serviceable." We do not doubt it, nor do we doubt but your neighbors will ere long follow your example in this as they have in other matters.

U. S. AG. SOCIETY'S PREMIUMS ON REAPERS AND MOWERS.—The Premiums on the machines tried at Syracuse in July, were declared at the Louisville meeting of the U. S. Ag. Society on the 4th inst. The awards were as follows:

FOR REAPERS.

1. To C. H. McCormick, Chicago, Ill.—Gold Medal.
2. Walter A. Wood, Hoosick Falls, N. Y.—Silver Medal.
3. To Warder, Brokaw & Child, Springfield, Ohio—Bronze Medal.
4. To Jona. Haines, Pekin, Ill.—Diploma.

FOR REAPERS AND MOWERS COMBINED.

1. To Walter A. Wood, Hoosick Falls, N. Y.—Gold Medal.
2. To D. M. Osborne, Buffalo, N. Y.—Silver Medal.
3. To Warder, Brokaw & Childs, Springfield, Ohio, Bronze Medal.

The award for Mowing machines has not come to hand.

THE SALE OF MR. WADE'S STOCK at Cobourg, C. W., took place Aug. 26th and 27th. We learn from the Rural New-Yorker, that the attendance was good, but that very few from the States were present. All of the cattle remained in Canada with the exception of three head, which were purchased by J. O. SHELDON, Esq., of Geneva, N. Y. Many advertised were withdrawn from sale. Thirty-eight head were disposed of at prices varying—for Cows—from \$80 to \$210; Bulls \$80 to \$200; Grade Short-horns, from \$60 to \$80. The Sheep (Leicesters,) looked finely and brought all prices, from good butcher's rates to \$80 per head.

IMPORTATION OF IMPROVED STOCK.—Messrs THOS. BETTS & Co., New-York, have just received, via Quebec and Montreal, an extensive importation of improved stock, embracing 11 head of Short-Horns, 2 Herefords, 41 South Down and 10 Hampshire sheep, and one thorough-bred stallion, all of which are for sale. Besides these, the cargo included the following animals, selected and purchased for the gentlemen named: Thorough-bred Stallion, for Quincey A. Shaw, Esq., Boston; thorough-bred Brood Mare, do. do.; Short-Horned Bull, for R. H. Dulany, Esq., Virginia; two Short-Horned Heifers, do. do.; South Down Buck from Jonas Webb, for R. H. Dulany, do. do.; ten Devons, for Alfred M. Tredwell, New-York city, and Linsley Brothers, Meriden, Conn.; two Shropshire Bucks, for Captain Fullerton, Boston; one Short-Horned Heifer, do. do.; three Pigs from prize stock, for C. B. Haines, Esq., New-Jersey. Messrs. BETTS are expecting two more cargoes of stock this fall—one to arrive in October, and the other in November.

SUGAR CANE VS. CORN STALKS.—Mr. JACOB SAX, Sheldon, Vt., writes us that he raises a variety of large sweet corn, the stalk of which he thinks possesses more saccharine matter than the Chinese Sugar Cane, or the sugar beet.

FINE SHEEP.—Mr. C. L. WHITING of Granville, Licking Co., Ohio, passed through this city last week, with a lot of Cotswold or New-Oxfordshire sheep, purchased of Mr. JOHN T. ANDREW of West Cornwall, Conn., consisting of a four year old ram, and five two-

year old and one lamb ewes. They were good specimens of long-wooled sheep, the ram weighing 236 lbs. and the ewes averaging 170 lbs., all in moderate condition.

PEABODY'S SEEDLING STRAWBERRY.—The Alabama State Ag. Society have awarded to CHARLES A. PEABODY, Esq., a Gold Medal of the value of \$50, "as a testimony of their high appreciation of his success in the propagation of his unequalled strawberry, the *Seedling Hautbois*, and in bringing the culture of the strawberry to such perfection."

GOOD WOOL AND HEAVY FLEECE.—You will find a small lock of wool enclosed, a sample of a Spanish Merino buck's fleece, which is a little short of one year's growth, which weighs 21½ pounds. I do not mention this thinking to boast on heavy fleeces, but seeing an account of a fleece in one of the late numbers of your paper which weighed 17 lbs., I thought perhaps it might be gratifying to you to see the sheep that shears 21½ lbs., which you may do should you attend the State fair at Buffalo. A. J. DIKE. *Depeyster, N. Y.*

SORGHO AND IMPHEE, the Chinese and African Sugar Canes—a treatise upon their origin, varieties and culture, their value as a Forage Crop; and the manufacture of Sugar, Syrup, Alcohol, Wines, Beer, Cider, Vinegar, Starch and Dye-stuffs; with a paper by Leonard Wray, Esq., of Caffraria, and a description of his patented process for Crystalizing the juice of the Imphee. To which are added copious translations of valuable French Pamphlets: by HENRY S. OLCOTT. Fully illustrated with Drawings of the best machinery.

The above is a duodecimo volume of 350 pages, just issued by A. O. MOORE, (late C. M. Saxton & Co.) Agricultural Book Publishers, New-York, and contains, we may well suppose, all that is now known in relation to the matters to which it is devoted.

PREMIUMS FOR TREES ON HIGHWAYS.—The Aquidneck Ag. Society of Rhode Island, have as we think very wisely offered premiums "for Ornamental Trees planted during the present year, to grow in front of their premises in the public road, not less than four feet high, and not less than ten feet apart, to such as shall be entitled to the same, regard being had to the number and quality planted, and the length of the owner's front." We hope this example will be followed by other societies.

SPRING RYE.—I have a new kind of spring rye, called "Egyptian Spring Rye." I send a few grains as a sample. I think it will yield well. I sowed one bushel which will produce, I think, at least 22 bushels. D. HALLENBERGER. *Pennville, Pa.* (The seed enclosed was a very fair sample of rye.)

MANURES ON PRAIRIE SOILS.—A residence of twenty years in this state, (Illinois) with some experience and observation, proves that our prairies are not benefitted by the addition of manure for any of the small grains; but for our *great crop*, Indian corn, and the grasses, especially timothy, it will pay here as well as anywhere.

MILLET SEED.—An analysis of this grain made in Great Britain, gives the following results:

Albuminous compounds.....	15.00
Starch, with a little gum, sugar, and woody fibre....	65.80
Oily matter.....	3.60
Water.....	11.20
Inorganic constituents, (Ash,).....	4.40

100.00

This shows, what has before been stated, that it possesses great value for feeding purposes—some authorities considering it superior to any of the cereals. In some Provinces in India it is extensively used by the inhabitants, and is generally regarded by them more nutritious than wheat. Without any design to create a "sugar cane" or "mulberry-tree" excitement on the subject, we may express our surprise that the

plant has not yet come into more general cultivation. We wish any of our readers who may have tried it, would report the results, and that those who have it growing would take some pains to make experiments. It may be added that those intending to use millet for feeding purposes should have it reduced into meal, the finer ground the better, and when intended for pigs, the meal should be previously boiled or steeped for a time in hot water.

PHRENOLOGICAL ALMANAC.—We have received Messrs. FOWLER & WELLS' Phrenological Almanac for 1858. It is got up in their usual good style, and contains a variety of matter interesting to the general reader as well as to Phrenologists, with about twenty portraits, accompanied with letter press descriptions. Address Fowler & Wells 308 Broadway, New-York.

Making Vinegar.

L. TUCKER & SON—We have no luck in making vinegar. Please inform us through *The Cultivator*, of a good way to make it, and you will much oblige A SUBSCRIBER. Rochester, Pa.

Cider in this country, malt liquors in England, and fermented grape juice in wine countries, are used for making vinegar. All these contain an abundance of organic matter, which induces fermentation; they absorb oxygen and give off hydrogen in the form of water. Hence, unlike the vinous fermentation, the presence of air is essential. But it must not be too largely admitted, lest it carry off certain parts essential to success. A barrel or cask is most convenient, with the bung open and covered with gauze to exclude insects.

Vinegar may be made by exposing one part of brown sugar with seven parts of water, and a small quantity of yeast, in a cask with open bung hole, for some weeks to the action of the sun's rays. But this vinegar is not so good as made in some other ways, being more or less viscous.

An excellent mode is the following: Mix a gallon of molasses with a barrel of cider, warm it in a large kettle, then put the mixture in a barrel with a few sheets of brown paper. Keep it in a warm place with the bung open, through which a stick is inserted for stirring it, to break the scum and admit the air. The vinegar may be drawn as needed, and its place supplied by cider, which in its turn will be converted to vinegar.

Variety in Fruits.

The present season shows the great advantage of cultivating as many of the different species of fruit as practicable, in order to secure a supply of something. The peach crop, is never looked upon as very certain anywhere; but in its absence we have been in the habit of looking to plums and apples. But the plum and apple crop are both a failure this year in most parts of the country—the plum from rotting chiefly, and the apple from injurious effects of the cold winters and dry summers on the trees, and the present unusual and unfavorable summer. Yet where all these have failed, pears have often produced fine crops; and even where pears too have failed, the small fruits for summer and the grape for autumn, have proved very valuable. The currant is probably the surest of all fruit crops, and this with its almost universal freedom from any disease or blight of the fruit, places it high on the list of valuable kinds. The raspberry, and especially Brinkle's Orange, and the Rochelle Blackberry, have filled a vacancy occasioned by the failure of early peaches and apricots; and strawberries and currants have taken the place of cherries. We would recommend to all landowners, who desire to secure a certain supply of fruit in different seasons, to omit the planting of nothing which possesses a fair character or promise—beginning with strawberries, and including raspberries, currants, gooseberries, blackberries, grapes, melons, and the best sorts of cherries, apricots, peaches, plums, apples, and pears, both standard and dwarf.

Value of Hay Caps—How Made.

EDS. CULT. AND CO. GENT.—I saw in your last number a notice of hay-caps, taken from the Co. Gent. Having now had four years experience in their use, and found that in all farming tools simplicity is a matter of first importance, I have abandoned all additions to the cotton cloth, and use it alone. Any water-proof cover is useless and injurious. A good heavy article of cotton (not twilled, but heavy sheeting,) will turn a week's rain. You want no sticks or stones—pull out a lock of hay and twist it around the corner of the cover, and one of our mountain thunder gusts will not move it. Let any one take four yards of Amoskeag cotton, cut it in two, sew it together with a double seam, hem the two ends, and it will make a cover two yards square. When you have saved a crop of hay or grain worth twice as much as that of your neighbor who will not expend a shilling to save a dollar, dry your covers very carefully, tie them, when neatly folded, in bundles of 25 each, put them out of the way of rats and of people who just want a cloth to cover up something, and in four years your covers will be as good as new. W. H. DENNING. Fishkill Landing, N. Y.

"Chinese Sugar Cane."

EDS. CULT. AND CO. GENT.—As this plant is just now exciting much attention throughout the country, any thing connected with its habits and growth may not be uninteresting. I have a small lot of it, which was planted the latter part of May. It has received no more attention than is usually bestowed on Indian corn, but its growth has been vigorous and rapid beyond any thing I have ever seen. Many of the stalks now exceed 12 feet in height and 4½ inches in circumference. It is finely headed, and in ordinary seasons there can be no doubt of its maturing; but the past has been so cold and backward, that it is somewhat doubtful of its now ripening sufficiently to fully develop its saccharine properties. It must, however, I should think, prove valuable for forage, from its rapid growth and the great amount of suckers thrown up from its roots. In many instances, where but one plant was left in a hill, there are now 4 and 5 large stalks from 8 to 12 feet in height.

Should the season prove favorable to its fully maturing, I intend to make some experiments, and will "report progress," and possibly, if an opportunity occurs, may give you a taste of its sweets. E. LEFFINGWELL, M. D. Aurora, Cayuga Co., N. Y.

How to Build an Ice House.

MESSRS. EDITORS—I take much pleasure in giving your Jersey Subscriber, what information I am possessed of in relation to "Ice Houses built of stone under ground." I have one built in the following manner: After excavating, a dry stone wall was laid, and all the crevices afterwards well pointed up with cement. Its shape is circular; diameter across the top 15 feet; depth 16 feet, tapering down to 10 feet across bottom. I have a building over it, which I use as a tool-house, octagon shape, eight feet high, the roof rising to a point. The sides are double, sealed overhead with boards, and a small opening in the peak for ventilation. The pit was so constructed that the ice would remain compact and solid as it melted and settled. The ice holds out until October.

My neighbor has one built of stone also, but in a different way. It is laid up with stone dry wall, and not cemented; arched over with brick like a cistern, with an opening in the top to put in the ice, and closed with a double cover with lights in each. It is built along side his house, and he has a door-way from the basement, from which he takes his ice during the summer, so that he has no occasion to remove the top until he wishes to refill it. We lay posts on the bottom, and

on them several bunches of faggots, and line the whole with straw. The ice does not keep as well in this one as in mine. The ice must be packed close and particular attention paid to ventilation and drainage. ZERO.

Fruit Growers' Society of Western New-York.

This Society held its autumnal exhibition and meeting at Rochester on the 18th and 19th days of the present month, and like its predecessors, was the means of eliciting a large amount of interesting and valuable information from the members. The subjects chiefly discussed were cultivation of pears on quince stock for extensive marketing; the leaf blight and cracking in the pear; the superiority of fresh soils for trees over those previously cropped with them; the best mode of training standard pears for orchards; the proper age for nursery trees when they are removed to the orchard; preserving fruits in cans, jars and bottles; the market culture of the raspberry and blackberry, &c. On all these subjects, many valuable facts were stated, the substance of which we hope to give in our next number.

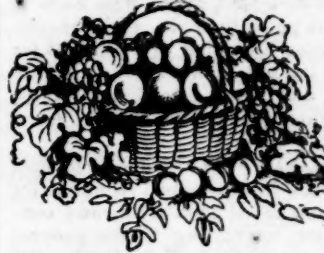
Among the prominent speakers present, who took part in the discussion, were CHARLES DOWNING of Newburgh, L. E. BERKMANS, of Plainfield, New-Jersey, W. P. TOWNSEND, and C. L. HOAG, of Lockport, T. C. MAXWELL and W. SMITH, of Geneva, S. H. AINSWORTH, of West Bloomfield, P. NORTON, of Brockport, W. B. SMITH, of Syracuse, Dr. BRISTOL, of Dansville, J. J. THOMAS, of Union Springs, and P. BARRY, H. E. HOOKER, J. FROST, C. P. BISSELL, and others, of Rochester.

Among the collections of fruit, were 77 sorts of the pear, and many other fruits from H. E. Hooker & Co., 42 of the pear from A. Frost & Co., and fine collections from Pratt, Bronson and Merrill of Geneva, Hooker, Farley & Co., and W. King of Rochester, and A. Covey of Penfield. But the finest collection by far, was that of Ellwanger & Barry, consisting of 195 varieties of the pear, selected from a much larger number, and consisting almost wholly of the finer sorts, and many of them of great rarity and excellence—and 22 varieties of the plum. Among the latter *Pond's Seedling* was conspicuous for its brilliant color and great size, most of the specimens measuring two and a half inches long—and there were many other sorts of much interest to fruit growers. Charles Downing presented beautiful specimens of the Delaware grape; and fine clusters of the Rebecca were sent by W. Brocksbank of Hudson.

A NEW WINNOWING MACHINE.—Mr. R. NUTTING of Randolph, Vt., exhibited a new machine at the late State Fair in that State, which is thus described by the Green Mountain Freeman:—"Among the new inventions, we noticed a machine somewhat resembling a fanning mill, yet more portable and symmetrical in form, for *cleaning* every kind of grain, grass and garden seeds, beans, peas, and *separating* each kind from every other kind, invented by R. Nutting of Randolph, and now exhibited for the first time, which seems to be an exceedingly useful invention, and possesses a wonderful capacity to separate oats, cockle, wild grass, and all foul seeds from wheat or any other grain, sorrel seed from herdsgrass, the larger kernels of grain or seeds from the smaller for seed, &c., which operations we witnessed. It seems withal to be very simple in construction, and is operated with much less power than winnowing mills, and by a very simple attachment the weight of the operator keeps the machine in any desired place."

MACEDON NURSERY.

THOMAS & HERENDEEN



OFFER for sale an extensive collection of APPLES, PEACHES, CHERRIES, PEARS and PLUMS, and Hardy GRAPES, RASPBERRIES, GOOSEBERRIES, CURRANTS, and other of the smaller Fruits of the most valuable sorts grown in the Northern States, and in

ALL CASES PROVED GENUINE.

Their ORNAMENTAL DEPARTMENT contains the best

Hardy Imported and American Evergreens,

Ornamental Trees, Shrubs, and Herbaceous Flowering Plants, the latter especially selected for their showy and brilliant character, in fitting them for Lawns and Door-Yard scenery.

All orders directed to "THOMAS & HERENDEEN, MACEDON, WAYNE Co., N. Y.," will meet with careful and prompt attention, and the Trees and Plants will be packed in the most secure manner for safe conveyance to any part of the United States.

A general or Retail Catalogue, and a condensed and Wholesale Catalogue for Nurserymen and Dealers only, furnished on the receipt of a stamp for the postage on each.

Oct. 1—w5tm2t

Dutch Bulbous Flower Roots, FOR FALL PLANTING

CONSISTING of choice DOUBLE and SINGLE HYACINTHS—price 20 cents each, or \$2 per dozen.

Early, Late, Single and Double TULIPS, varying from 10 to 20 cents each. A choice mixture at 75 cents per dozen.

CROWN IMPERIALS—25 cents each.

POLYANTHUS NARCISSUS and EARLY ROMAN do.—20 cts. each.

DOUBLE NARCISSUS—10 cents each.

MIXED CROCUS—25 cents per dozen.

ARUM DRACUNCULUS, or Dragon Flower—25 cents.

DOUBLE SNOWDROPS, ANEMONES and Ranunculus—50 cents per dozen.

Large WHITE LILY—10 cents each.

Double do. do.—25 " "

" JONQUILLES—10 " "

GLADIOLUS COMMUNIS and BYZANTUM—10 cents each.

PEACOCK, ENGLISH BOURBONS and PERSIAN IRIS—10 cts. CHALCEDONIAN do.—20 cents.

Any Bulbs not included in above list, can be obtained at short notice. All the Bulbs offered by the subscriber are first class, and such as will give satisfaction. All orders promptly attended to. W. THORBURN, Seedsman, Sept. 24—w6tm1t 492 Broadway, Albany, N. Y.

Pacific Ocean Guano.

200 TONS, containing 6 per cent. of ammonia, and 40 per cent. of phosphates—in quantities to suit purchasers.

Sept. 10—w4tm1t.

A. LONGETT,
34 Cliff-st., New-York.

CHOICE IOWA LANDS, FOR SALE LOW.

200 ACRES of excellent Farming Land, within an hour's ride by railroad from Burlington, Iowa, and twelve hour's distance from Chicago. In a pleasant neighborhood, with a railroad station of 1,000 inhabitants within a few miles, and an excellent market.

Price \$18 per Acre. Eight Dollars in cash—the balance on 10 year's credit, with 6 per cent. interest. This sale being to close an estate for the benefit of infant heirs, a length of credit at a rate of interest seldom given in the West, offers an uncommonly favorable chance to purchasers.

Also 2,000 Acres of choice Farming Land in this vicinity, in lots to suit, surrounded by good farms, and convenient to market. Price from \$12 to \$20 per Acre, according to locality; one-fourth in cash, the balance in one, two and three years, with 10 per cent. interest.

Also—1,500 Acres of well selected land in Adams Co., Iowa, near the line of the Burlington and Missouri River Railroad. Price \$5 per Acre—cash down. Guardians making investments for minors in a State where the value of land increases as rapidly as in Iowa, will find this a favorable opportunity for purchasing.

Sept. 3—w4tm1t

J. F. TALLANT,
Burlington, Iowa.

Fine Flowering Bulbs.

ELLWANGER & BARRY have just received from Holland, a large invoice of Flowering Bulbs, including the very finest

HYACINTHS, double and single—all colors.
TULIPS, do. do.
NARCISSUS.
CROCUS, 20 beautiful sorts.
CROWN IMPERIALS, 8 varieties.
LILIES, a large collection.
DOUBLE AND SINGLE SNOW DROPS.
IRIS, many varieties.
AMARYLLIS, &c., &c.

Those who desire a fine display next spring, should plant immediately. All orders filled promptly, and on the most reasonable terms. **ELLWANGER & BARRY,**

Mount Hope Nurseries, Rochester, N. Y.

Oct. 1—w2tm1t.

Self Adjusting Door Hangers.

I OFFER my improved Door Hangers to those building or repairing Barns and out-buildings, and claim for them the following advantages:

1. Its cost of constructing and hanging, is less than the common door. 2. The door never sags, nor gets out of place. 3. It is never slammed with the wind. 4. It is never obstructed by snow. 5. It will last as long as any part of the building. 6. It shuts more closely than the ordinary door, preventing the snow from driving in and excluding the cold. 7. The SELF ADJUSTING principle, which allows the door to be opened and closed at all times, however large, with ease to the operator, all cramping being prevented. 8. It is made larger than the door-way, entirely protecting the posts and sill from decay; it can be made highly ornamental, and hung externally or internally. Posts need not be larger than a common stud, as no strain will come directly upon them. Full directions for putting up will accompany each sett. Warranted a better and more substantial Door Hanger, than any other offered to the public, and to give satisfaction to the purchaser, if they can be returned and the money will be refunded.

All orders should be addressed to

A. W. MORSE,
Patentee and Manufacturer,
Eaton, Madison Co., N. Y.

Aug. 27—w1tm1t

**HORSE POWERS,
THRESHING MACHINES,
EXCELSIOR FAN MILLS,**

AT the North River Agricultural Warehouse,
GRIFFING BROTHER & CO.,
Aug. 20—w8tm2t 60 Courtlandt-St., New-York.

**ALBANY TILE WORKS.**

Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

HORSE-SHOE TILE CUT 14 INCHES LONG—PIECES.

2 1/2 inches rise,	\$12 per 1000
3 1/2 " " "	15 "
4 1/2 " " "	18 "
5 1/2 " " "	40 "
6 1/2 " " "	60 "
8 " " "	80 "

SOLE TILE CUT 14 INCHES LONG—PIECES.

2 inches rise,	\$12 per 1000
3 " " "	18 "
4 " " "	40 "
5 " " "	60 "
6 " " "	80 "

Also on hand 6-inch calibre Octagon pipe, \$20 per 100, and 8-inch calibre Round pipe, \$30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. McCAMMON,
Albany, N. Y.

RICHD. H. PEASE, Agent,
Excelsior Ag. Works, Warehouse and Seed Store,
March 1—w&mtf 359 & 371 Broadway, Albany, N. Y.

SHORT-HORNS.

I HAVE in my stables three young BULLS, two of which I offer for sale, viz:

"**HIAWATHA**," 1863—red—calved November, 1855; bred by Sam'l Thorne, Esq. A first-class animal in every respect, with extraordinary good handling and quality—Price \$1,000.

"**KNIGHT OF GWYNNE**,"—mostly red—calved May, 1857; bred by Sam'l Thorne, Esq.; got by Grand Duke 2d, (12961) out of Dinah Gwynne, by Balco (9918.) For farther pedigrees, see 2d vol. A. H. B. p. 352—Price \$500.

Also several Cows and Heifers in calf to Hiawatha, at from \$200 to \$500.

"**CRICKET**,"—roan—calved June, 1857; got by Double Duke, 1451 1/2, out of Crumie—see 3d vol. A. H. B., p. 357—Price \$200.

My farm is but five minutes walk from Sennett Station of New-York Central R. R., (old road,) and five miles east of Auburn.

J. R. PAGE,
Sennett, N. Y.

Aug. 27—w4tm1t

PERUVIAN GUANO,

In large or small quantities at Lowest Market Price

R. L. ALLEN, 189 & 191 Water-st., New-York.

BEWARE of adulterated or damp Guano, and of all other FERTILIZERS which can be mixed or depreciated without detection. The demand for artificial and commercial fertilizers is now so large in the United States, that it is becoming a great object to adulterate them. This has been done to so considerable an extent in England, as to have called for the most stringent measures for the exposure of rascality, and the protection of farmers.

Feb. 26—wew&mtf

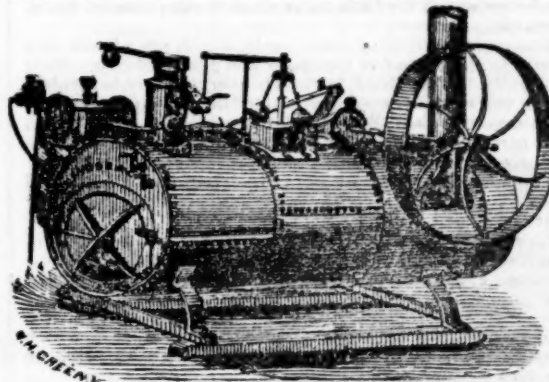
Berkshire Pigs for Sale!

WARRANTED of pure breed, and at a low figure.

WILLIAM J. PETTEE,

June 11—w&mtf

Lakeville, cConn.



Wood's Portable Steam Engine Works,
Eaton, Madison Co., N. Y.

A. N. WOOD & CO.

Practical Machinists, and Builders of their Celebrated PORTABLE STEAM ENGINES

For Farm and Mechanical Purposes.

WE HAVE made great improvements in our Engines the past winter, particularly in the manner of setting the tubes in the boilers, (by Prosser's Patent) adding a large wrought-iron dome in place of small cast ones, increased the size of fire-box, with ash-pan that can be closed up tight or opened at pleasure,—also in the manner of connecting the governor to throttle, making it direct action.

Parties wishing Circulars with cuts of Engine, should enclose P. O. Stamp to pay return postage on same. The following is our

PRICE LIST FOR 1857.

Horse estimate	space oc-	cash price	fly-wheel di-	face of
power weight	cupied		ameter	wheel
2 1/2 2000 lb.	4 by 5 ft.	\$240	39 in.	5 1/2 in.
3 2200 "	5 by 5 "	290	39 "	5 1/2 "
4 2500 "	7 by 5 "	355	40 "	6 "
6 3600 "	7 by 5 "	650	44 "	7 "
8 4800 "	9 by 6 1/2 "	700	48 "	8 "
10 6000 "	10 by 6 1/2 "	875	60 "	8 "
12 7500 "	14 by 6 1/2 "	1050	72 "	12 "

The above price includes boxing and delivered on board cars.

April 23—wtf—June 1—mft.

A. N. WOOD & CO.

250,000 Pear Trees,

STANDARDS AND DWARF. For sale by
GEO. W. WILSON,
 Sept. 10w1tmt. Malden, Mass.

Speckled Dorkings.

I HAVE a few spring Chickens for sale at \$10 per half dozen. Several of the Cocks are rose or double-combed.
J. R. PAGE,
 Aug. 27—w4tmt Sennett, N. Y.

Choice Farm Lands for Sale.

THE ILLINOIS CENTRAL R. R. COMPANY,
 IS NOW PREPARED TO SELL ABOUT
1,500,000 ACRES
OF CHOICE FARMING LANDS,
 In Tracts of 40 Acres and upwards, on Long Credits and at Low Rates of Interest.

THESE Lands were granted by the Government to aid in the construction of this Road, and are among the richest and most fertile in the world. They extend from north-east and north-west, through the middle of the State, to the extreme south, and include every variety of climate and productions found between those parallels of latitude. The northern portion is chiefly prairie, interspersed with fine groves, and in the middle and southern sections timber predominates, alternating with beautiful prairies and openings.

The climate is more healthy, mild and equable, than any other part of the country—the air is pure and bracing, while living streams and springs of excellent water abound.

Bituminous Coal is extensively mined, and supplies a cheap and desirable fuel, being furnished at many points at \$2 to \$4 per ton—and wood can be had at the same rate per cord.

Building Stone of excellent quality also abounds, which can be procured for little more than the expense of transportation.

The great fertility of these lands, which are a black rich mould from two to five feet deep, and gently rolling,—their contiguity to this Road, by which every facility is furnished for travel and transportation, to the principal markets North, South, East, West, and the economy with which they can be cultivated, render them the most valuable investment that can be found; and present the most favorable opportunity for persons of industrious habits and small means to acquire a comfortable independence in a few years.

Chicago is now the greatest grain market in the world—and the facility and economy with which the products of these lands can be transported to that market, make them much more profitable at the prices asked, than those more remote at government rates,—as the additional cost of transportation is a perpetual tax on the latter, which must be borne by the producer, in the reduced price he receives for his grain, &c.

The Title is perfect—and when the final payments are made, Deeds are executed by the Trustees appointed by the State, and in whom the title is vested, to the purchasers, which convey to them absolute titles in Fee Simple, free and clear of every incumbrance, lien or mortgage.

The Prices are, from \$6 to \$30—Interest only 3 pr. ct. Twenty per cent. will be deducted from the Credit Price for Cash.

Those who purchase on long credit, give notes payable in 2, 3, 4, 5 and 6 years after date, and are required to improve one-tenth annually for five years, so as to have one-half the land under cultivation, at the end of that time.

Competent Surveyors will accompany those who wish to examine these Lands, free of charge, and aid them in making selections.

The lands remaining unsold are as rich and valuable as those which have been disposed of.

SECTIONAL MAPS

Will be sent to any one who will enclose fifty cents in Postage Stamps, and Books or Pamphlets, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad Lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc.,—or any other information—will be cheerfully given on application, either personally or by letter, in English, French or German, addressed to

JOHN WILSON,

Land Commissioner of the Ill. Central R. R. Co.
 Office in Illinois Central Railroad Depot, Chicago Ill.
 April 9—w&mtm

Notice Extraordinary.

To Farmers who consult their Interest and Comfort.

THE CELEBRATED EXCELSIOR HORSE POWER THRESHER and Separator, manufactured by the subscriber, has been awarded the **FIRST PREMIUM** by the United States Agricultural Society at their great exhibition in Louisville, Ky., Sept. 1, 2, 3, 4 and 5, 1857. It was tested in competition with all the best Powers made in this country, in presence of the judges, and was pronounced **THE BEST**, as its name indicates. Those wishing these machines will apply soon, as the demand is large and the supply limited. Get the best, which is always the cheapest.

Agents wanted where none are established, and if well recommended, a liberal commission will be given them.

Descriptive Circulars furnished on application, **GRATIS**
 For further particulars address **RICH. H. PEASE,**
 Sept. 17—w13tm3t. Albany, N. Y.

SENT POST-FREE, TO ANY POST-OFFICE.

THE ILLUSTRATED HYDROPATHIC ENCYCLOPEDIA: A Complete System of Hydropathy and Hygiene. By R. T. TRALL, M.D. One large volume with nearly 1,000 pages. Illustrated with 300 Engravings. Price, prepaid by Mail, \$3. Address

FWLER & WELLS,

No. 308 Broadway, N. Y.

"The most comprehensive and popular work yet published on Water-Cure. Of all the publications which have attained such a wide popularity, as issued by **FWLER & WELLS**, none are more adapted to general utility than this rich, comprehensive, and well-arranged Encyclopedia."—[N. Y. Tribune. Sept. 17—w3tmt]

**Excelsior Ag. Works, Albany, N. Y.**

RICH'D H. PEASE, Proprietor.

WE OFFER the farmers and other responsible persons of this country, a rare chance to make money as fast as they can in most any other way, by selling our Celebrated Excelsior Patent Railway Endless Horse Powers, Threshers, Cider Mills, Saw Mills, &c., &c., for which we will allow them a liberal commission. Last season many farmers sold these machines for us, and they all made money, and are anxious to sell them again this season. All communications addressed to the subscriber will be promptly answered.

RICH'D H. PEASE.

CERTIFICATES.

Bedford Co. Tenn. Oct. 15, 1856.

We the undersigned hereby certify that we have purchased of the Agent of the Manufacturer, Richard H. Pease of Albany, New-York, his "Excelsior Horse Power and Thresher," and having used them a sufficient length of time to convince us of their utility and durability, feel no hesitancy in saying that in our opinion they are the very best of which we have any knowledge, they having performed to our entire satisfaction. Given under our hand, day and date above.

GARRET PHILLIPS,
M. L. DISMUKES,
THOS. LIPSCOMB,
WM. A. ALLEN,
J. T. ARNOLD,
W. W. HASTINGS,
JAMES MULLINS.

BENJ. GARRETT,
ALEX. SANDERS,
WM. M. GOGGIN,
ALEX. EAKIN,
REDDING GEORGE,
J. J. KOONCE,
W. C. J. BROWN,

H. D. DAVIDSON.

EAST GREENWICH, N. Y., Feb. 25, 1857

MR. R. H. PEASE—I received the Two Horse Power, Thresher and Separator I purchased of you, and put it to work to test it. I have threshed 2,500 bushels of wheat, oats and rye with them, without a break of any kind. It works to my entire satisfaction, and I think there is no better machine made.

May 14—w&mtf.

WM. MCNEIL.

New Canaan Nurseries.

THE subscribers would invite attention to their Nursery stock, consisting of

100,000 Apple Trees, from two to five feet from the bud or graft.

40,000 Peach, one year from the bud.

20,000 do. two do. do.

Pear Trees, Standard and Dwarf. Cherry, Plum, Apricot and Quince Trees. Also 20,000 American Arborvitae, from three to five feet high, (twice transplanted.) Norway Spruce and other ornamental trees. Grape vines, Raspberry, Blackberry and Gooseberry plants. Currants (of the popular varieties.) &c., &c. Address

STEPHEN HOYT & CO.,

Sept. 10—w8tm1t.

New Canaan, Ct.

Plum and Cherry Seedlings.

100,000 Prime Mazzard Cherry Seedlings for sale at \$5 per M. No charge for package when 5,000 are taken.

15,000 strong two years old Plum Seedlings, at \$10 per M.

E. G. STUDLEY.

Aug. 13—w2tm2t.

Claverack, Col. Co., N. Y.

Pacific Ocean Guano.

200 TONS, containing 6 per cent. of ammonia, and 40 per cent. of phosphates—in quantities to suit purchasers.

A. LONGETT,

Sept. 10—w4tm1t.

34 Cliff-st., New-York.

FOR SALE!

Cahoon's Seedling Pie Plant.

I WILL securely pack in boxes, and forward according to directions. Ten Roots for \$5; Five Roots for \$3; One Root for \$1; by the Hundred, \$40. Cash, in all cases, to be sent with the order.

TESTIMONIALS.

GRAND RAPIDS, (Mich.,) July 17, 1857.

MR. CAHOON—Dear Sir—I have been quite successful with Pie Plant obtained from you last spring, and want to make a few inquiries about its culture. The leaves on some of the stalks are 20 feet in circumference, and are still growing; some of the stalks are seven inches in circumference and 2 feet in length. You may expect a good many orders from here next spring.

Is it advisable to cut it much the first year? and do you CUT or PULL it? Some of the roots throw out a great many stalks—would it increase the size of the stalks to thin them out to 4 or 5 in a hill? and do you keep the seed stalks cut back?

Please answer my inquiries, and oblige. Yours, &c.,

F. B. GILBERT.

ANSWERS TO QUESTIONS IN THE ABOVE LETTER.

1. Cut very little. 2. Pull it with quick side jerk. 3. It will. 4. I do. [B. P. CAHOON.]

MAMMOTH PIE PLANT.—We are indebted to T. Newell, Esq., for specimens of Pie Plant that exceed anything of the kind in size, that we ever looked upon. One single root has, at one cutting, produced forty-eight pounds! A single leaf, it is said, has measured twenty-two feet around! The stalks before us will weigh about five lbs. each. Some, it is stated, have weighed eight. They were obtained by Mr. Newell from Mr. B. P. Cahoon, of Kenosha, Wisconsin, who puts them up in boxes at a dollar a root, or ten roots for five dollars. We hope they will be freely introduced to this vicinity.—*New-Haven Daily Palladium*, July 21, 1857.

CAHOON'S SEEDLING PIE PLANT.—We have just received from B. P. CAHOON, of Kenosha, Wis., a box containing fourteen stalks of the variety of Rhubarb originated by him, which are fully equal in size and flavor to those noticed by us last year. One or two of them has the leaf still attached, the main ribs on the back of which are nearly as large as ordinary stalks. When we add that each stalk of several of the smaller ones tried by us, would make three good-sized pies, the fact will perhaps go as far as their dimensions in feet and inches. Mr. C. very justly remarks in the accompanying letter: "The article is now rather out of date in your market, but here in the West where we have but little fruit, it is highly prized, and above all other varieties, for the roots send up new leaf stalks till November. It is as fresh and green in October as in May, when grown on moist land and on roots of one and two years old."—*Country Gentleman*, (Albany, N. Y.,) August 13th, 1857.

B. P. CAHOON,

Sept. 3—w3tm1t Agent for G. LEWIS, Kenosha, Wis.

PERUVIAN GUANO,

Government Weight and Brand.

COLUMBIAN GUANO,

Government Weight and Brand.

SUPERPHOSPHATE OF LIME.

MANIPULATED GUANO NUMBER 1.

BONE DUST.

For sale by

Aug. 1—m3t.

A. LONGETT, 34 Cliff Street,

Corner of Fulton, New-York

PERUVIAN GUANO,

Superphosphate of Lime, &c.

THE best quality of Peruvian Guano, with Government weight and brand on each bag, by the cargo or in smaller quantities, at the LOWEST PRICE.

SUPERPHOSPHATE OF LIME.—Being agent of the largest manufacturers, I can supply a first-rate article at the lowest manufacturer's prices.

BONE-DUST—Coarse and fine ground—also sawings and filings.

POUDRETTE and **TAFEU** by the barrel.

My warehouse is the LARGEST depot in the United States for the various kinds of FERTILIZERS, all of which are guaranteed of the best and most reliable quality.

AGRICULTURAL AND HORTICULTURAL IMPLEMENTS, FIELD AND GARDEN SEEDS,

A large and complete assortment of all the improved kinds.

MOWING AND REAPING Machines.

R. L. ALLEN,

Feb. 26—wew&mtf 189 & 191 Water-st., New-York.

Gould's Patent Premium Corn Husker.

FOR THE MILLION.

THESE HUSKERS have gained a reputation surpassed by no invention of the age, in proportion to the time they have been before the public. Over 75,000 were sold last season. They are a saving of one-third labor and all sore fingers. Price, sent to any address pre-paid, only 25 cents—10 for \$2. Orders covering \$5, at wholesale prices. Money refunded for all returned at the close of the season. Circulars sent on application. Address E. NASH,

Aug. 27—w&mt.*

Auburn, N. Y.



THE SCHENECTADY AG. WORKS,

Manufacture Improved Railway Horse Powers, Threshers and Separators Threshers and Winnowers, Combined Clover Hurlers, and Sawing Machines.

THE undersigned having been over twenty years engaged in building Horse Powers and Threshing Machines, feel confident from past experience and the numerous testimonials we are receiving from all parts of the country, of the superiority of our Machines, that we can give satisfaction to all who may favor us with their orders. Our HORSE POWERS are made substantial, and so geared that it requires the team to travel only about 14 miles per hour, thereby making them suitable to work either horses or cattle on them. Our THRESHERS and THRESHERS AND WINNERS are so constructed as to discharge all the grain and dust through the Machine, and not into the feeder's face, as is usual, with other kinds. The Thresher and Winnower has a revolving wire separator, which does the work more perfect than can be done any other way.

The SEPARATOR (riddle) has a fork or straw-shaker, which shakes the grain out of the straw as it passes from the Thresher.

We warrant these Machines to suit the purchaser upon trial, or they can be returned and the money will be refunded.

G. WESTINGHOUSE & CO.,

March 5—woam&m5t.

Schenectady, N. Y.

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